

Information Technology Training Package ICA99

Endorsed Competency Standards, Assessment Guidelines and Qualifications

Supporting Qualifications

ICA10101	Certificate I in Information Technology
ICA10201	Certificate I in Information Technology (E-Consumer)
ICA20199	Certificate II in Information Technology
ICA20201	Certificate II in Information Technology (Applications)
ICA30199	Certificate III in Information Technology (Software Applications)
ICA30299	Certificate III in Information Technology (General)
ICA30399	Certificate III in Information Technology (Network Administration)
ICA40199	Certificate IV in Information Technology (Client Support)
ICA40299	Certificate IV in Information Technology (Database Administration)
ICA40399	Certificate IV in Information Technology (Network Management)
ICA40499	Certificate IV in Information Technology (Multimedia)
ICA40599	Certificate IV in Information Technology (Technical Support)
ICA40699	Certificate IV in Information Technology (Programming)
ICA40799	Certificate IV Information Technology (Systems Analysis & Design)
ICA40801	Certificate IV Information Technology (Helpdesk)
ICA40901	Certificate IV Information Technology (Telesales)
ICA41001	Certificate IV in Information Technology (Website Administration)
ICA41101	Certificate IV in Information Technology (Website Design)
ICA50199	Diploma of Information Technology (Systems Administration)
ICA50299	Diploma of Information Technology (Software Development)
ICA50399	Diploma of Information Technology (Business Analysis)
ICA50499	Diploma of Information Technology (Network Engineering)
ICA50599	Diploma of Information Technology (Multimedia Integration)
ICA50601	Diploma of Information Technology (Website Development)
ICA50701	Diploma of Information Technology (Internetworking)
ICA50801	Diploma of Information Technology (E-Business Development)
ICA50901	Diploma of Information Technology (Knowledge Management)
ICA51001	Diploma of Information Technology (Database Design & Development)
ICA51101	Diploma of Information Technology (Project Management)
ICA60101	Advanced Diploma of Information Technology (E-Business Development)
ICA60201	Advanced Diploma of Information Technology (E-Business Analysis)
ICA60301	Advanced Diploma of Information Technology (E-Learning Development)
ICA60401	Advanced Diploma of Information Technology (E-Security)
ICA60501	Advanced Diploma of Information Technology (Project Management)

© Australian National Training Authority (ANTA), 2002

Australian National Training Authority
Level 11, AMP Place
10 Eagle Street
BRISBANE, QLD 4000
Phone: (07) 3246 2300
Fax: (07) 3246 2490

All rights reserved. This work has been produced initially with the assistance of funding provided by the Commonwealth Government through ANTA. This work is copyright, but permission is given to teachers, trainers and assessors to make copies by photocopying or other duplicating processes for use within their training organisation or in a workplace where training is being conducted. This permission does not extend to the making of copies for use outside the immediate training environment for which they are made, nor the making of copies for hire or resale to third parties. For permission outside these guidelines, apply in writing to the Australian National Training Authority.

This work is the result of wide consultations with many Australian industry participants throughout Australia. Consequently, it is a collaborative view and does not necessarily represent any specific body and no single body warrants its content or accepts liability.

Published by: Australian Training Products Ltd
Level 25, 150 Lonsdale St
Melbourne 3000
Phone: +61 3 96550600 Fax: +61 3 9639 4684
www.atpl.net.au e-mail: sales@atpl.net.au

First Published May, 1999

STOCKCODE: 8025003S

ISBN: 0 642 79700 5

Information Technology Training Package ICA99 (Vol 2 of 2)

Printed for Australian Training Products Ltd by Document Printing Australia, Melbourne, Australia

AESharenet: P
Version 3.00
April, 2002

IMPORTANT

Training packages are not static documents. Changes are made periodically to reflect the latest industry practices.

Before commencing any form of training or assessment, you must ensure delivery is from the *current version* of the Training Package.

To ensure you are complying with this requirement :

- Check the Print Version Number just below the copyright statement on the imprint pages of your current Training Package.
- Access the ATP website (<http://www.atpl.net.au>) and check the latest Print Number.
- In cases where the Print Version Number is later than yours, the Print Version Modification History in the Training Package sample on the ATP website will indicate the changes that have been made.

The Modification History is also available on the website of the developer of the Training Package: IT & Titab Australia <http://www.ittitab.com.au>

The National Training Information Service (<http://www.ntis.gov.au>) also displays any changes in Units of Competency and the packaging of qualifications.

MODIFICATION HISTORY – ENDORSED MATERIALS			
Please refer to the National Training Information Service for the latest version of Units of Competency and Qualification information (http://www.ntis.gov.au).			
Information Technology Training Package ICA99			Sheet: 1 of 1
Version	Date of Release	Authorisation:	Comments
1.00	1/05/1999	NTFC	Primary Release
2.00	1/11/2001	NTQC	minor changes to several of the existing qualifications and additions in the Range of Variables and Evidence Guides for a significant number of existing standards. Additionally, ten new competency standards and four new qualifications were added to the Training Package
3.00	30/4/2002	NTQC	Addition of 14 new IT e-business qualifications and 80 new competency standards. Additionally, minor modifications/inclusions to a number of existing qualifications and standards.

Forms control: All endorsed training packages will have a version number displayed on the imprint page of every volume constituting that training package. Every training package will display an up-to-date copy of this modification history form, to be placed immediately after the contents page of the first volume of the training package. Comments on changes will only show sufficient detail to enable a user to identify the nature and location of the change. Changes to training packages will generally be batched at quarterly intervals. This modification history form will be included within any displayed sample of that training package and will constitute all detail available to identify changes.

Contents

IMPORTANT	1-iii
Introduction	1-1
Training Package Overview	1-1
Training Package features	1-3
What makes up the Training Package?.....	1-3
Endorsed Components	1-3
Non-endorsed Components	1-4
The National Industry Training Advisory Body	1-4
Methodology	1-5
The National IT Systems Competency Standards and Training Package Project Steering Committee	1-5
The Enhancements Project Steering Group	1-5
Steering Committee Members	1-5
Initial ICA99 Development	1-5
Enhancements Project	1-7
ANTA E-Business Initiative Project Steering Group	1-7
Evolution of the Information technology Training Package	1-9
IT Functional Area Definitions	1-15
The IT industry.....	1-15
Systems Development	1-15
Systems Integration	1-15
Systems Installation	1-15
Systems Maintenance	1-16
Systems Management and Control.....	1-16
Competency Framework Overview	1-17
Competency Standards.....	1-24
Format and structure of the competency standards	1-24
Unit coding.....	1-25
The Australian Qualifications Framework.....	1-26
Certificate I	1-26
Certificate II	1-26
Certificate III.....	1-26
Certificate IV.....	1-27
Diploma.....	1-27
Advanced Diploma.....	1-27
Qualifications in the IT Training Package	1-29
Defining Qualifications (packaging units of competency).....	1-29
Relationship of Initial ICA99 Qualifications to Qualifications in ICA98	1-29
Relationship of New Qualifications to Existing Qualifications in ICA99.....	1-31
Changes Implemented in ICA99 Version 2.0.....	1-31
Summary of new Qualifications and Competency Standards for ICA99 V3.0	1-32
Alignment to the Australian Qualifications Framework	1-35
Titles of Qualifications.....	1-35
Customisation of Qualifications.....	1-35
Qualifications and Pathways	1-36
New Apprenticeships	1-47
Recognition	1-47
Details of Qualifications	1-49
Certificate I in Information Technology ICA10101	1-49
Certificate I in Information Technology (E-Consumer) ICA10201	1-50

Certificate II in Information Technology ICA20199.....	1-51
Certificate II in Information Technology (Applications) ICA20201.....	1-52
Certificate III in Information Technology (Software Applications) ICA30199.....	1-53
Certificate III in Information Technology (General) ICA30299.....	1-54
Certificate III in Information Technology (Network Administration) ICA30399.....	1-55
Certificate IV in Information Technology (Client Support) ICA40199.....	1-56
Certificate IV in Information Technology (Database Administration) ICA40299.....	1-57
Certificate IV in Information Technology (Network Management) ICA40399.....	1-58
Certificate IV in Information Technology (Multimedia) ICA40499.....	1-59
Certificate IV in Information Technology (Technical Support) ICA40599.....	1-61
Certificate IV in Information Technology (Programming) ICA40699.....	1-62
Certificate IV in Information Technology (Systems Analysis and Design) ICA40799.....	1-64
Certificate IV in Information Technology (Helpdesk) ICA40801.....	1-65
Certificate IV in Information Technology (Telesales) ICA40901.....	1-66
Certificate IV in Information Technology (Website Administration) ICA41001.....	1-67
Certificate IV Information Technology (Website Design) ICA41101.....	1-68
Diploma of Information Technology (Systems Administration) ICA50199.....	1-69
Diploma of Information Technology (Software Development) ICA50299.....	1-70
Diploma of Information Technology (Business Analysis) ICA50399.....	1-71
Diploma of Information Technology (Network Engineering) ICA50499.....	1-72
Diploma of Information Technology (Multimedia Integration) ICA50599.....	1-74
Diploma of Information Technology (Website Development) ICA50601.....	1-76
Diploma of Information Technology (Internetworking) ICA50701.....	1-77
Diploma of Information Technology (E-Business Development) ICA50801.....	1-78
Diploma of Information Technology (Knowledge Management) ICA50901.....	1-79
Diploma of Information Technology (Database Design and Development) ICA51001.....	1-80
Diploma of Information Technology (Project Management) ICA51101.....	1-81
Advanced Diploma of Information Technology (E- Business Development) ICA60101.....	1-82
Advanced Diploma of Information Technology (E-Business Analysis) ICA60201.....	1-83
Advanced Diploma of Information Technology (E-Learning Development) ICA60301.....	1-84
Advanced Diploma of Information Technology (E-Security) ICA60401.....	1-85
Advanced Diploma of Information Technology (Project Management) ICA60501.....	1-86
Issuing Qualifications.....	1-87
Statements of Attainment.....	1-87
Issuing a qualification.....	1-87
Vendor Certification.....	1-87
Possible Career Outcomes for Qualifications.....	1-89
Possible Job Roles for E-Business Qualifications.....	1-90
Possible Structured Learning Pathways.....	1-92
Sample Learning Sequences: IT E-Business Qualifications Certificates IV to Advanced Diploma.....	1-93
Information Technology Assessment Guidelines.....	1-94
Assessment System Overview.....	1-94
Benchmarks for Assessment.....	1-94
Assessor Qualifications.....	1-95
Using Qualified Assessors.....	1-95
External Audit of Assessment Process.....	1-96
Guidelines for Designing Assessment Materials.....	1-96
Guidelines for Conducting Assessment.....	1-96
The use of workplace simulation for assessment of IT units of competence.....	1-97
Workplace Simulation Criteria.....	1-97
Role of Registered Training Organisations.....	1-100
Role of Registered Training Organisations.....	1-101
Partnerships.....	1-101
Assessment Pathways.....	1-102

Contents for Strategy Planning Competency Standards	Section 2
Contents for Analysis and Design Competency Standards	Section 3
Contents for Build IT Competency Standards	Section 4
Contents for Test IT Competency Standards	Section 5
Contents for Implement IT Competency Standards	Section 6
Contents for Support IT Competency Standards.....(Volume 2).....	Section 7
Contents for Use IT Competency Standards	Section 8
Contents for Teamwork IT Competency Standards	Section 9
Contents for Documentation IT Competency Standards	Section 10
Contents for Project Management Competency Standards	Section 11
Contents for Other Training Package Competency Standards(Volume 2).....	Section 12

7. Support IT Solutions

ICAITS008B	Maintain equipment/software inventory	7-3
ICAITS009B	Interact with clients.....	7-5
ICAITS010C	Apply problem solving techniques to achieve organisation goals	7-8
ICAITS014C	Connect hardware peripherals.....	7-12
ICAITS015B	Install software applications.....	7-17
ICAITS016C	Record client support requirements	7-19
ICAITS017C	Maintain system integrity	7-23
ICAITS020C	Install and optimise system software	7-27
ICAITS021C	Connect internal hardware components	7-31
ICAITS022B	Determine client computing problems and action.....	7-35
ICAITS023B	Provide one to one instruction.....	7-38
ICAITS024C	Provide basic system administration	7-41
ICAITS025B	Run standard diagnostic tests	7-45
ICAITS029B	Install network hardware to a network.....	7-48
ICAITS030B	Install software to networked computers	7-52
ICAITS031B	Provide advice to clients	7-55
ICAITS032B	Provide network systems administration	7-58
ICAITS033B	Assist with policy development for client support procedures	7-61
ICAITS034B	Determine and action network problem.....	7-64
ICAITS035C	Assist with analysis of emerging technology	7-66
ICAITS102B	Establish and maintain client user liaison.....	7-69
ICAITS103B	Establish and maintain client user liaison during support activity.....	7-73
ICAITS104B	Determine maintenance coverage	7-77
ICAITS105B	Coordinate change requests	7-82
ICAITS106B	Action and complete change requests.....	7-87
ICAITS107B	Rectify system faults on a live system	7-93
ICAITS108B	Complete database back-up and recovery	7-98
ICAITS109B	Evaluate system status	7-102
ICAITS110B	Implement system software changes.....	7-106
ICAITS111B	Manage and review delivery of maintenance services.....	7-111
ICAITS112B	Optimise system performance.....	7-117
ICAITS113B	Identify and resolve common database performance problems.....	7-123
ICAITS114B	Implement maintenance procedures.....	7-127
ICAITS115B	Maintain equipment and software in working order	7-132
ICAITS116B	Undertake capacity planning	7-138
ICAITS117B	Maintain custom software	7-144

ICAITS118B	Manage system security	7-150
ICAITS119B	Monitor and administer systems security.....	7-155
ICAITS120B	Administer and configure a network operating system	7-160
ICAITS121A	Administer network peripherals	7-164
ICAITS122A	Troubleshoot and resolve network problems.....	7-167
ICAITS123B	Manage network security.....	7-170
ICAITS124B	Monitor and administer network security.....	7-175
ICAITS125B	Monitor and administer a database	7-180
ICAITS134A	Provide remote helpdesk support.....	7-184
ICAITS191A	Maintain web site performance.....	7-188
ICAITS192A	Configure an Internet Gateway.....	7-194
ICAITS193A	Connect a workstation to the internet	7-198
ICAITS194A	Ensure basic web site security	7-201
ICAITS195A	Ensure dynamic website security	7-205
ICAITS196A	Implement secure encryption technologies.....	7-210
ICAITS197A	Install and maintain valid authentication processes.....	7-216
ICAITS198A	Develop guidelines for updating and loading information to a web site.....	7-221
ICAITS199A	Manage e-business websites	7-226
ICAITS200A	Monitor traffic and compile specified site traffic reports	7-233
ICAITS201A	Transfer content to a web site using commercial applications	7-236
ICAITS202A	Ensure privacy for users	7-240
ICAITS203A	Choose a web hosting service.....	7-245

UNIT	ICAITS008B Maintain equipment/software inventory
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to record and store the organisation’s software, equipment and technical documentation
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Document and update inventory	<ol style="list-style-type: none"> 1. Inventory is maintained to include Information Technology equipment movements, new purchases or redundant equipment 2. Software inventory and licences are maintained and updated in line with upgrades 3. Manuals and associated technical documentation are recorded and stored 4. Unused equipment is stored according to technical manuals
2. Store technical documentation	<ol style="list-style-type: none"> 1. Technical documentation is stored as required by organisational guidelines 2. Technical documentation is accessed and disseminated as required to meet client requirements

RANGE OF VARIABLES	
VARIABLE	SCOPE
Equipment	Variables may include but are not limited to: personal computers, networked systems, personal organisers, communications equipment; peripherals may include, printers, scanners, tape cartridges, speakers, multi media kits; keyboard equipment may include mouse, touch pad, keyboard, pens
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, mail, Internet browsers and presentation functionalities
Organisation	Variables may include but are not limited to: security procedures; storage and retrieval of product licences; storage of Information Technology equipment and documentation; disposal policy; technical manuals, in-house, product and vendors
Literacy	Literacy in regard to technical documentation
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.

UNIT	ICAITS008B Maintain equipment/software inventory
-------------	---

Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence	Assessment must confirm the ability to accurately and regularly update and maintain the software, equipment and technical documentation inventory according to identified storage and retrieval policy and procedures. Software licensing requirements are adhered to according to vendor specifications; Inventories are regularly accessed and kept up-to-date; Literacy skills in regard to workplace documentation and technical manuals are demonstrated	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU007B, ICAITU012B, ICAITU013B, ICAITS015B, ICAITS017B. The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • Basic understanding of systems, organisational • Basic software licensing requirements understanding • General copyright regulations • Broad knowledge of inventory principles and procedures • Current business practices in relation to preparing reports 	Underpinning skills includes: <ul style="list-style-type: none"> • Basic reading, writing and interpretation skills in regard to workplace documentation • Plain English literacy and communication skills in relation to the presentation of information • Problem solving skills for a defined range of predictable problems • Low level decision making skills
Resources	Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts	
Context	Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.	

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	2	1	1	1	1

UNIT	ICAITS009B Interact with clients
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to provide routine client support in a professional manner, with exceptions being referred
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Deliver support to clients	<ol style="list-style-type: none"> 1. Communication is conducted with clients in a courteous and professional manner, according to organisational policy 2. Routine client support requirements are acted on, or referred to supervisor according to organisational policy 3. Client contact is maintained until problem is actioned
2. Respond to client complaints	<ol style="list-style-type: none"> 1. A positive, helpful attitude to clients when handling complaints is conveyed 2. Complaints are handled sensitively, courteously and with discretion 3. Active listening and questioning is used to establish and confirm nature of complaint with client 4. Action to resolve client complaint to client satisfaction is taken wherever possible or promptly referred to supervisor
3. Convey information and ideas to people	<ol style="list-style-type: none"> 1. Ideas and suggestions are expressed clearly to clients 2. Problems and concerns are relayed to the supervisor 3. Supervisor's recommendations are acted on

RANGE OF VARIABLES	
VARIABLE	SCOPE
Organisational	Variables may include but are not limited to: client service standards; complaints handling policy; client liaison; policy;
Clients	Variables may include but are not limited to: internal and external, new and regular clients; people from a range of social, cultural or ethnic backgrounds; seniority of clients; communication styles of clients;
Problems	Are routine individual problems that may affect the immediate work environment
Literacy skills	With regard to workplace documentation
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control

UNIT	ICAITS009B Interact with clients
-------------	---

OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm ability to provide routine client support in a professional manner, with exceptions being referred to appropriate area as they occur, according to escalation procedures.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	Underpinning knowledge <ul style="list-style-type: none"> • General principles of EEO and anti-discrimination • General understanding of systems, organisational • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Detailed knowledge of the operating system • Broad general knowledge of the client business domain and business critical functions • Principles of ethical work practice • Organisational policies in regard to external and internal client contact 	Underpinning skills <ul style="list-style-type: none"> • Customer service skills in relation to client support procedures • Handling difficult clients skills in relation to client support procedures • Conflict resolution skills in relation to client support procedures • Low level training needs analysis skills • Verbal and non-verbal communication is appropriate to the work environment • Decision making skills applied to a limited range of options • Questioning and active listening are employed to clarify information • Problem solving skills for a defined range of predictable problems • ICAITW002B • ICAITD003B
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts	
Context	<p>Work is carried out under routine supervision. An individual demonstrating this Unit would be able to: demonstrate basic operational knowledge in a moderate range of areas; apply a defined range of skills; apply known solutions to a limited range of predictable problems; perform a range of tasks where choice between a limited range of options is required; assess and record information from varied sources; and take limited responsibility for one's own outputs in work and learning.</p> <p>This competency can be assessed in the workplace or in a simulated environment.</p>	

UNIT	ICAITS009B Interact with clients
-------------	---

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	1	2	2

UNIT	ICAITS010C Apply problem solving techniques to achieve organisation goals
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to apply problem solving techniques to determine and resolve the root cause of a routine malfunction
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Scan immediate environment to identify possible problems	1. Immediate work environment is defined with supervisor 2. Irregularities in environment are identified and acted upon accordingly
2. Identify, assess and resolve routine problems	1. Routine problems are identified 2. Possible options are identified 3. Ramifications on self and working environment are assessed 4. Information and ideas are conveyed to affected people and supervisor 5. Solution is implemented or problem is referred to appropriate personnel
3. Refer non-standard problem to supervisor	1. Problem and concerns are relayed to the supervisor 2. Supervisor's recommendations are acted on

UNIT	ICAITS010C Apply problem solving techniques to achieve organisation goals
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Organisational	<p>Variables may include but are not limited to:</p> <ul style="list-style-type: none"> • work environment; • problem solution processes; • preventive maintenance and diagnostic policy; • roles and technical responsibilities in the Information Technology department; • vendor and product service level support agreements
Liaison methods	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • websites, • web applications, • CRM technologies, • written communication /reports, • group meetings, • one on one meetings, • e-mail, telephone calls, newsletters, etc.
Documentation and Reporting	<p>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates</p>
Problem/ Solutions	<p>Refer to routine individual problems that may affect the immediate work environment, particularly in relation to using equipment such as workstations, key boards, the mouse etc.</p>
Standards and procedures	<p>May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost</p>
Client User	<p>May be a department within the organisation or a third party and so the relation and ease of access will vary.</p>
OH and S Standards	<p>As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency</p>

UNIT	ICAITS010C Apply problem solving techniques to achieve organisation goals
-------------	--

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to apply problem solving techniques to determine the root cause of a routine malfunction or to refer the problem according to escalation procedures	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/support units.	
Underpinning skills and knowledge	Underpinning knowledge <ul style="list-style-type: none"> • Broad understanding of systems, organisational • Broad knowledge of help desk and maintenance practices • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Broad knowledge of the operating system • Broad general knowledge of the client business domain • A broad knowledge base incorporating current industry practices relating to escalation procedures • Broad knowledge base of diagnostic tools • General principles of OH&S • Divisional/ unit responsibilities 	Underpinning skills <ul style="list-style-type: none"> • Decision making within a limited range of options • Communication is clear, precise and varies according to audience • Team work is participated in taking limited personal responsibility • Time management is applied to self management • Analytical skills in relation to routine malfunctions • General customer service skills displayed • Questioning and active listening is employed to clarify general information • ICAITW001B
Resources	To demonstrate this unit of competence the candidate will require access to: <ul style="list-style-type: none"> • A PC or workstation • Other peripherals such as a key board, mouse, speakers Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts	

UNIT	ICAITS010C Apply problem solving techniques to achieve organisation goals
-------------	--

Context Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine.

An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/ information.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate basic operational knowledge in a moderate range of areas;
- apply a defined range of skills;
- apply known solutions to a limited range of predictable problems;
- perform a range of tasks where choice between a limited range of options is required;
- assess and record information from varied sources; and
- take limited responsibility for one’s own outputs in work and learning.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	1	2	1	2	2

UNIT	ICAITS014C Connect hardware peripherals
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to connect hardware peripherals according to instructions.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITU004B, ICAITU005B, ICAITU006B, ICAITU007B, ICAITU012B, ICAITU013B, ICAITS015B, ICAITS017C
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Confirm requirements of client	<ol style="list-style-type: none"> 1. Client's peripheral requirements are identified and are confirmed in accordance with organisation standards 2. Client requirements and peripherals needed in line with organisation guidelines are documented and are reported to the supervisor 3. Client requirements are cleared with supervisor in line with organisation guidelines 4. Client support expectations are covered by vendor's warranty and support services
2. Obtain required peripherals	<ol style="list-style-type: none"> 1. Peripherals are obtained under instruction from management/supervisor 2. Peripherals are entered into equipment inventory according to organisation's procedures 3. Contents are validated and method of ensuring the physical contents match the packing list is demonstrated 4. Peripherals are stored according to vendor/manual guidelines
3. Connect hardware peripherals	<ol style="list-style-type: none"> 1. Timeframe for installation schedule is verified with higher authority 2. Existing peripherals are disconnected and replaced, with minimal disruption to clients 3. New peripherals are connected with minimum disruption 4. Computer is configured to accept new peripherals 5. Hardware peripherals are tested and client satisfaction is confirmed. Amendments are made as required for client

UNIT	ICAITS014C Connect hardware peripherals
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Peripherals	<p>Peripherals will normally connect to an existing interface port or wireless and do not include peripherals accessed internally.</p> <p>Peripherals may include but are not limited to:</p> <ul style="list-style-type: none"> • printers, scanners, tape cartridges, • speakers, multi media kits, • PC fax, modems, • key board equipment may include mouse, touch pad, key board, pens • mobile phones, palmtops & PDAs, laptops, and desktop computers • Bluetooth devices, Universal Serial Bus (USB) <p>Peripherals can be sourced from existing inventory or vendors.</p>
Operating systems	<p>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare</p>
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems

UNIT	ICAITS014C Connect hardware peripherals
Software and Applications	Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.
Configuration	Configuration includes automatic, plug and play and manual
Reporting procedures	Help desk and maintenance structures will vary. Some may be a call centre or a general contact point which then calls a supplier or other technician. Others may be staffed by technicians capable of solving the problem. Thus documentation and other procedures will vary. Systems to monitor change request may be manual or computerised.
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Standards and procedures	May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to connect hardware peripherals according to vendor instructions with a minimum of down time to the system. Competency is required in the connection of five different peripherals. Ability to interpret vendor manuals in relation to the storage and connection of hardware peripherals is demonstrated. Occupational Health and Safety regulations relating to working with electrical equipment is adhered to
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU007B, ICAITU012B, ICAITU013B, ICAITS015B, ICAITS017C The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITS014C Connect hardware peripherals
-------------	---

Underpinning skills and knowledge

Underpinning knowledge

- Broad general knowledge of OH&S procedures for electrical equipment
- Detailed knowledge of inventory procedures
- Organisational guidelines relating to external suppliers and vendors
- General understanding of systems, technical
- Broad knowledge base incorporating theoretical concepts of three or more current industry accepted hardware peripherals; knowledge of general features and capabilities and detailed knowledge in some
- Broad knowledge base incorporating theoretical concepts of three or more current industry accepted system components; knowledge of general features and capabilities and detailed knowledge in some
- Broad knowledge base incorporating theoretical concepts of operating systems
- Broad knowledge of help desk and maintenance practices
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge base incorporating theoretical concepts of input/output devices

Underpinning skills

- Customer service skills in relation to maintenance procedures
- Handling difficult clients skills in relation to maintenance procedures
- Conflict resolution skills in relation to maintenance procedures
- Decision making in a limited range of options
- Literacy in regard to general workplace documentation
- Problem solving skills for a defined range of predictable problems
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Facilitation and presentation skills in relation to transferring and collecting information
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas

Resources

To demonstrate this unit of competence the candidate will require access to:

- the organisation’s hardware blueprint,
- the vendor’s support staff (on call if assessment is a live activity),
- additional staff may be required to support the assessment

Evidence can be collected through a supervisor’s report, peer reports and client reports. Each report should be structured and require comment on each performance criteria and the evidence guide.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time.

UNIT

ICAITS014C Connect hardware peripherals

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/ information.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate basic operational knowledge in a moderate range of areas;
- apply a defined range of skills; apply known solutions to a limited range of predictable problems;
- perform a range of tasks where choice between a limited range of options is required;
- assess and record information from varied sources; and
- take limited responsibility for one's own outputs in work and learning.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS015B Install software applications
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to install software applications under instruction
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine software or software upgrade requirements of clients	<ol style="list-style-type: none"> 1. Client requirements are documented and reported to supervisor 2. Supervisor’s instructions to meet client requirements are acted on in line with organisation guidelines, corporate purchasing, licensing arrangements, and budget
2. Obtain software or software upgrade	<ol style="list-style-type: none"> 1. Software is obtained under instruction from management or supervisor 2. Licensing requirements are determined and recorded in line with organisation guidelines
3. Install software or upgrade	<ol style="list-style-type: none"> 1. Upgrades are installed to meet supervisor instructions 2. Process is undertaken so clients experience minimal disruption 3. Computer is installed to accept software 4. Testing and acceptance in line with corporate guidelines are carried out 5. Client requirements are satisfied. Amendments are made as required for client, or client is referred to appropriate person/supervisor, if necessary

RANGE OF VARIABLES	
VARIABLE	SCOPE
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; operating systems - stand alone PC systems and network operating systems; word processing, spreadsheet, database, graphics, communication packages or any applications as used by the organisation; software installation instructions and manuals; range of suppliers
Hardware	Includes personal computers but not networks
Organisation	Variables may include but are not limited to: contracting arrangements relating to Information Technology purchasing; licensing requirements and supplier options; storage and retrieval of product licences; storage of Information Technology equipment and documentation; testing standards Client requirements may vary
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.

UNIT	ICAITS015B Install software applications
-------------	---

Development methods/tools	Will vary from the traditional Systems Development life cycle with little or no formalisation to a very well structured CASE tool.
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to install software applications through operating system instructions and to configure computer to accept new software or upgrade		
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS014C, ICAITS017C, ICAITS020C, ICAITS112B The interdependence of units of competency for assessment will vary with the particular project or scenario		
Underpinning skills and knowledge	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Underpinning knowledge: <ul style="list-style-type: none"> • Organisational guidelines for purchasing • Broad general knowledge of licensing arrangements and responsibilities • Broad general knowledge of software copyright responsibilities • Broad general knowledge of operating systems supported by the organisation • Broad general knowledge of hardware storage devices • Broad general knowledge of Input/output devices • Broad general knowledge of the client business domain </td> <td style="width: 50%; vertical-align: top;"> Underpinning skills: <ul style="list-style-type: none"> • General Customer Service • Decision making in a limited range of options • Problem solving of known problems in routine procedures • Plain English literacy and communication skills in relation to the presentation of information • Report writing skills for business requiring some analysis and evaluation of information in a defined range of areas </td> </tr> </table>	Underpinning knowledge: <ul style="list-style-type: none"> • Organisational guidelines for purchasing • Broad general knowledge of licensing arrangements and responsibilities • Broad general knowledge of software copyright responsibilities • Broad general knowledge of operating systems supported by the organisation • Broad general knowledge of hardware storage devices • Broad general knowledge of Input/output devices • Broad general knowledge of the client business domain 	Underpinning skills: <ul style="list-style-type: none"> • General Customer Service • Decision making in a limited range of options • Problem solving of known problems in routine procedures • Plain English literacy and communication skills in relation to the presentation of information • Report writing skills for business requiring some analysis and evaluation of information in a defined range of areas
Underpinning knowledge: <ul style="list-style-type: none"> • Organisational guidelines for purchasing • Broad general knowledge of licensing arrangements and responsibilities • Broad general knowledge of software copyright responsibilities • Broad general knowledge of operating systems supported by the organisation • Broad general knowledge of hardware storage devices • Broad general knowledge of Input/output devices • Broad general knowledge of the client business domain 	Underpinning skills: <ul style="list-style-type: none"> • General Customer Service • Decision making in a limited range of options • Problem solving of known problems in routine procedures • Plain English literacy and communication skills in relation to the presentation of information • Report writing skills for business requiring some analysis and evaluation of information in a defined range of areas 		
Resources	Competency may be assessed in a simulated work environment or the work place. Peers and supervisors for obtaining information on the extent and quality of the contribution made.		
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts		
Context	Work is carried out under routine supervision. An individual demonstrating this Unit would be able to: demonstrate basic operational knowledge in a moderate range of areas; apply a defined range of skills; apply known solutions to a limited range of predictable problems; perform a range of tasks where choice between a limited range of options is required; assess and record information from varied sources; and take limited responsibility for one's own output in work and learning.		

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	2	1	1	1	2

UNIT	ICAITS016C Record client support requirements
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to record, prioritise and escalate client support requests
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Log requests for support	<ol style="list-style-type: none"> 1. Client’s requests for assistance are logged according to client’s support requirements 2. Calls are logged according to critical ratings and impact on business 3. Organisational guidelines regarding critical ratings are followed 4. Information is checked for accuracy and urgency according to organisation guidelines
2. Prioritise support requests	<ol style="list-style-type: none"> 1. Requests are prioritised according to guidelines or identified criticality on impact of the business 2. Requests are referred to appropriate person for assistance 3. Escalation procedures of organisation are followed

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Tools	Tools to record requests such as database, paper forms
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

UNIT	ICAITS016C Record client support requirements
-------------	--

Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Organisational	<p>Variables may include but are not limited to:</p> <ul style="list-style-type: none"> • security procedures; • logged call procedures; • critical ratings policy; • client liaison policy; • escalation procedures • preventive maintenance and diagnostic policy; • roles and technical responsibilities in the Information Technology department; • vendor and product service level support agreements
Communication	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> • websites, • web applications, • CRM technologies, • written communication /reports, • group meetings, • one on one meetings, • e-mail, telephone calls, newsletters, etc.

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to accurately log calls according to organisational critical rating/urgency policy and by recording, prioritising and escalating client support requests according to organisational policy and procedures
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITS016C Record client support requirements	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Organisational procedures for critical ratings • A broad knowledge base incorporating some theoretical concepts of escalation procedures • General understanding of systems, organisational • Roles and responsibilities of IT division • A broad knowledge base of maintenance procedures • Business scheduling requirements • Current business practices in relation to preparing reports • A broad knowledge base incorporating some theoretical concepts of diagnostic tools 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Literacy skills in regard to general workplace documentation • General customer service • Decision making in a limited range of options • Questioning and active listening in clarifying client requirements • Basic analytical skills for questioning and gathering information • Customer service skills in relation to receiving requests for assistance • Handling difficult clients skills in relation to receiving requests for assistance • Conflict resolution skills in relation to receiving requests for assistance
Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • Logging procedures • Critical process • Escalation procedures <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time</p>	

UNIT

ICAITS016C Record client support requirements

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/ information.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate basic operational knowledge in a moderate range of areas;
- apply a defined range of skills;
- apply known solutions to a limited range of predictable problems;
- perform a range of tasks where choice between a limited range of options is required;
- assess and record information from varied sources; and
- take limited responsibility for one's own outputs in work and learning.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICAITS017C Maintain system integrity
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to protect and secure stand-alone or client server environments
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITU019B, ICAITS025B, ICAITS113B, ICAS021B, ICAITS020C, ICAITB060A, ICAITS031B
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Carry out file maintenance	<ol style="list-style-type: none"> 1. File back-ups are carried out 2. Back-ups are determined and stored according to organisational guidelines 3. Records of back-up are maintained
2. Carry out virus scanning	<ol style="list-style-type: none"> 1. Virus protection is maintained 2. Detected viruses are reported to supervisor and are removed
3. Follow software copyright procedures	<ol style="list-style-type: none"> 1. Software licences are monitored 2. Illegal software is determined 3. Illegal software is reported to supervisor
4. Record software licences	<ol style="list-style-type: none"> 1. Licensed software is determined 2. Records of licence number and location are maintained 3. Personal computers and networks are checked for illegal software 4. Illegal software is reported to supervisor
5. Restore system back-up	<ol style="list-style-type: none"> 1. Back-ups are restored 2. Restore procedures are determined according to the organisational guidelines 3. Restore is carried out under supervisor instruction 4. Restore carried out is recorded according to the organisational guidelines

UNIT

ICAITS017C Maintain system integrity

RANGE OF VARIABLES

VARIABLE

SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Hardware	Variables may include but are not limited to: <ul style="list-style-type: none"> • personal computers, • networked systems; • tools to perform back-ups such as tapes, • streamers, • floppy disks
Applications	May include presentation applications contained in: <ul style="list-style-type: none"> • Microsoft Office, • Lotus Suite, • Claris Works • Star Office or other similar applications
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Organisational	Variables may include but are not limited to keyboarding and accuracy as per organisation guidelines
Operating Systems	Command line and Graphical User Interface
Storage media/ Disks	May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Software	Software application/operating system with system security functions

UNIT	ICAITS017C Maintain system integrity
Organisation	<p>Variables may include but are not limited to:</p> <ul style="list-style-type: none"> • security procedures; • backing-up procedures; • virus removal procedures; • software licence documentation; • reporting of illegal software; • restore procedures
Client User	<p>May be a department within the organisation or a third party and so the relation and ease of access will vary.</p>
Antivirus software	<p>There are various antivirus software applications available. Some include: McAfee, Panda AntiVirus, Protector Plus Antivirus ProLand Software, Pelican Software's SafeTNet, Symantec's Norton Antivirus, Command Antivirus, eSafe, Vet</p>

EVIDENCE GUIDE

Critical aspects of evidence	<p>Assessment must confirm the ability to protect and secure stand alone or networked client server environments and operating systems according to system maintenance procedures. Undertaking file back-up, restore, delete and archive are carried out according to back-up and restore procedures</p>	
Interdependent assessment of units	<p>This unit may be assessed with any of the following: ICAITU019B, ICAITS025B, ICAITS113B, ICAS021C, ICAITS020C, ICAITB060B, ICAITS031B The interdependence of units of competency for assessment will vary with the particular project or scenario</p>	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Software copyright responsibilities • A broad knowledge base incorporating some theoretical concepts of system performance • Broad knowledge of maintenance procedures • A broad knowledge base of inventory procedures • A broad knowledge base incorporating some theoretical concepts of restore procedures • A broad knowledge base of storage and retrieval guidelines • A broad knowledge base incorporating some theoretical concepts of operating systems • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • A broad knowledge base incorporating some theoretical concepts of diagnostic tools • A broad knowledge base of current viruses and protection methods 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Plain English literacy and communication skills in relation to the presentation of information • Basic diagnostic skills in relation to system integrity • Questioning and active listening in regard to clarifying instructions • Basic analytical skills in relation to system integrity • Problem solving skills for a defined range of predictable problems • Problem solving in regard to known problems in routine procedures • Research skills for identifying broad features of current viruses and best practice in virus protection

UNIT

ICAITS017C Maintain system integrity

Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • Back-up guidelines • Antivirus software <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time</p>
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.</p> <p>This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.</p> <p>Work is carried out under routine supervision. An individual demonstrating this Unit would be able to: demonstrate basic operational knowledge in a moderate range of areas; apply a defined range of skills; apply known solutions to a limited range of predictable problems; perform a range of tasks where choice between a limited range of options is required; assess and record information from varied sources; and take limited responsibility for one's own output in work and learning.</p>

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	2	1	1	1	2

UNIT	ICAITS020C Install and optimise system software
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to apply aspects of systems optimisation
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS014B, ICAITS017B, ICAITS015B, ICAITS112B
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine operating systems requirements	<ol style="list-style-type: none"> 1. Operating system requirements are determined and documented 2. Requirements of clients are evaluated in line with organisation guidelines, corporate, licensing arrangements and budget
2. Obtain operating system	<ol style="list-style-type: none"> 1. Vendors are contacted and technical specifications are obtained 2. Recommendations are documented and provided to appropriate personnel 3. Licensing, hardware and security requirements are determined and followed
3. Install and optimise operating system	<ol style="list-style-type: none"> 1. Operating system is installed, configured and tested in accordance with installation procedures and organisational requirements 2. System to meet organisational requirements is optimised 3. System is documented according to organisational requirements 4. Installation is conducted with minimal disruption to clients
4. Provide instruction to meet new software requirements	<ol style="list-style-type: none"> 1. One to one instruction to the client is provided as required 2. Client evaluation and feedback are obtained to ensure requirements of client are met

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Software

Variables may include but are not limited to: operating systems include stand alone PC systems and network operating systems; commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, mail, communication packages and presentation functionalities; licensing options

UNIT	ICAITS020C Install and optimise system software
Applications	<p>May include presentation applications contained in:</p> <ul style="list-style-type: none"> • Microsoft Office, • Lotus Suite, • Claris Works • Star Office or other similar applications
Keyboarding	<p>Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards</p>
Operating Systems	<p>Command line and Graphical User Interface</p>
Storage media/Disks	<p>May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs</p>
Documentation and Reporting	<p>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates</p>
Hardware	<p>Includes:</p> <ul style="list-style-type: none"> • personal computers, • networked systems, • personal organisers, • communications equipment
Organisational	<p>Variables may include but are not limited to:</p> <ul style="list-style-type: none"> • availability of system to be optimised; • level of complexity of technical manuals, • in-house or vendor; contracting arrangements relating to Information Technology purchasing; • client support documentation; • IT policy and procedures relating to service levels and installation
Client User	<p>May be a department within the organisation or a third party and so the relation and ease of access will vary.</p>
Documentation and Reporting	<p>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates</p>
OH and S Standards	<p>As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency</p>

UNIT	ICAIT020C Install and optimise system software
-------------	--

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to install and improve system performance with minimum disruption to clients	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS014C, ICAITS017C, ICAITS015B, ICAITS112B The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Information Technology infrastructure • Understanding systems, organisational and technical • Detailed knowledge of the system’s current functionality • Functions and features of operating systems supported by the organisation • Organisation’s network linkage • Set up and configuration procedures • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Software packages supported by the organisation • Pre-requisites needed for system software installation • Vendor specifications and requirements for installation • Broad general knowledge of the client business domain • Broad knowledge base incorporating theoretical concepts of systems software • Broad general knowledge of systems diagnostic software 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Strong interpersonal skills for team work and responsible workplace interactions • Questioning and active listening for conveying and clarifying information • Literacy skills in regard to interpretation of technical computer installation manuals • Use of diagnostic tools • ICAITS015B

UNIT	ICAITS020C Install and optimise system software
-------------	--

Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • PC/ workstation <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time</p>
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.</p> <p>This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.</p> <p>Work is conducted with minimal supervision. An individual demonstrating these competencies would be able to: demonstrate some relevant theoretical knowledge; apply a range of well developed skills; apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; interpret available information, using discretion and judgement; take responsibility for one's own output in work and learning; and take limited responsibility for the output of others. Work may involve some responsibility for others. Participation in teams including group or team coordination may be involved.</p> <p>This competency can be assessed in the workplace or in a simulated environment</p>

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	2	1	1	2	2	2

UNIT	ICAITS021C Connect internal hardware components
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to connect internal hardware components according to specifications
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITU019B, ICAITS012B, ICAITU127A
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine new components required	1. Interaction with client is achieved, to determine requirements 2. Client requirements are documented and passed on to supervisor
2. Obtain components	1. Vendors are contacted and technical specifications are obtained 2. Recommendations are documented and provided to supervisor
3. Install components	1. Components are installed with minimum disruption to clients 2. Components are installed, configured and tested in accordance with installation procedures and organisational requirements 3. System is optimised to meet organisational need
4. Provide instruction to meet new requirements	1. One to one instruction to client is provided as required 2. Client evaluation and feedback are obtained to ensure requirements of client are met

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Optimisation tools	Include standard configuration tools and programs provided with component, operating system and third party products
Internal components	Include but not limited to: Motherboards, CMOS Battery, Central Processing Unit (CPU), CD and DVD Drives, interface cards; drives; fax/modem cards; RAM upgrades; CPU upgrades

UNIT	ICAITS021C Connect internal hardware components
Organisation	Variables may include but are not limited to: configuration procedures; contracting arrangements relating to Information Technology purchasing; technical manuals, in-house, product and vendors
Applications	<p>May include presentation applications contained in:</p> <ul style="list-style-type: none"> • Microsoft Office, • Lotus Suite, • Claris Works • Star Office or other similar applications
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Operating Systems	Command line and Graphical User Interface
Storage media/Disks	May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs
Hardware	<p>Includes:</p> <ul style="list-style-type: none"> • personal computers, • networked systems, • personal organisers, • communications equipment
Organisational	<p>Variables may include but are not limited to:</p> <ul style="list-style-type: none"> • availability of system to be optimised; • level of complexity of technical manuals, • in-house or vendor; contracting arrangements relating to Information Technology purchasing; • client support documentation; • IT policy and procedures relating to service levels and installation
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

UNIT

ICAITS021C Connect internal hardware components

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to connect internal hardware components according to vendor and technical specifications. Installation of components must be across a variety of situations

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITU019B, ICAITS012B, ICAITU127A The interdependence of units of competency for assessment will vary with the particular project or scenario

Underpinning skills and knowledge**Underpinning knowledge:**

- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Software packages supported by the organisation
- Operating systems supported by the organisation
- Understanding systems, technical
- Pre-requisites needed for component installation
- Vendor specifications and requirements for component installation
- Organisation's network linkage
- Set up and configuration procedures
- Detailed knowledge of the operating system
- Detailed knowledge of installation procedures
- Broad knowledge base of systems diagnostic software
- Broad knowledge base of Input/output, storage and processing devices

Underpinning skills:

- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts
- Interpersonal skills for a range of client/vendor levels
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Questioning and active listening for a range of client/ vendor levels
- Customer service for internal and external clients
- One to one instruction
- Literacy skills in regard to interpretation of technical computer installation manuals
- ICAITS014B

UNIT	ICAITS021C Connect internal hardware components
------	--

Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • A number of hardware components <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time</p>
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.</p> <p>This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.</p> <p>Work is conducted with minimal supervision. An individual demonstrating these competencies would be able to: demonstrate some relevant theoretical knowledge; apply a range of well developed skills; apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; interpret available information, using discretion and judgement; take responsibility for one's own output in work and learning; and take limited responsibility for the output of others. Work may involve some responsibility for others. Participation in teams including group or team coordination may be involved.</p>

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	2	2	1	1	1	2

UNIT	ICAITS022B Determine client computing problems and action
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to record and prioritise client support activities, determine the required resources, solve the client problem or escalate as necessary
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine client problem	<ol style="list-style-type: none"> 1. Appropriate questions are asked to determine client problem 2. Client problem is documented for follow-up 3. Specific client requirements from logged requests are determined, and further appropriate investigation such as on site visit is carried out, to gain further information
2. Prioritise client problems	<ol style="list-style-type: none"> 1. Scale of problem is determined and monitored 2. Problem constraints are determined 3. Impact analysis of problem to organisation is undertaken 4. Priorities are determined 5. Advice and support are provided to the client from database of known problems, if possible
3. Refer maintenance to supervisor where required	<ol style="list-style-type: none"> 1. Options of referral or action are investigated and appropriate process is followed 2. Client help documentation is provided as required 3. Support and advice are documented according to organisation guidelines 4. Maintenance and technical support agreements are determined 5. Problem is referred to supervisor, management or technical area as required 6. Referrals are documented and tracked according to organisation guidelines
4. Carry out maintenance	<ol style="list-style-type: none"> 1. New components are obtained in line with organisation guidelines 2. Maintenance is completed in line with organisation guidelines 3. Used components are stored and disposed of in accordance with organisation guidelines

UNIT	ICAITS022B Determine client computing problems and action
5. Prepare maintenance report	<ol style="list-style-type: none"> 1. Maintenance is prepared in line with organisation guidelines 2. Maintenance requirements to appropriate area are escalated as required
6. Confirm problem resolution	<ol style="list-style-type: none"> 1. Client evaluation and feedback are obtained to ensure requirements of client are met 2. Problem is resolved to client satisfaction or client is referred to supervisor/appropriate person for follow-up 3. Problem is resolved to client satisfaction

RANGE OF VARIABLES	
VARIABLE	SCOPE
Advice and support	Can include: provision of client documentation, manuals; documentation from vendor ; advice on software supported by the organisation can include but is not limited to formatting spreadsheets, creation of graphs, setting up of word processing documents for printing, setting up an electronic mail system; advice on hardware supported by the organisation, including but not limited to operation of printers, setting of screen resolution, formatting of disks, reconfiguration of printers and scanners
Further investigation	Can include: On site examination; Question and answers; Active listening to client and other employees; Contacting vendor or maintenance contract organisations; Referring to technical area
Database of known problems	Can include information available in the workplace, from Internet or from software vendors
Organisation information	Includes security procedures, logged call procedures, contracting arrangements relating to Information Technology purchasing Hardware and software options within organisational environment
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to record and prioritise client support activities, determining the required resources, solving the client problem or escalating according to organisational guidelines or practices
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU127A, ICAITS112B, ICAITS113B, ICAITS032B The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITS022B Determine client computing problems and action
-------------	--

Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Principles of EEO and anti-discrimination • Principles of OH&S • Understanding systems, technical and organisational • Broad general knowledge of operating systems functions and basic features • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Broad knowledge base of escalation procedures • Hardware and software supported by the organisation • Information Technology terminology • Telephone, fax and on-line functions and procedures • Work group procedures • Broad general knowledge of Equal Opportunity legislation • Broad general knowledge of Anti-discrimination legislation • In-house or vendor support available • Security and network guidelines/procedures • Broad general knowledge of Occupational Health and Safety regulations 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Strong customer service • Decision making involving discretion and judgement • Time management for self and others • Solving known problems in a variety of contexts • Questioning and active listening for conveying and clarifying information • Literacy skills in regard to interpretation of technical manuals • ICAITS016B
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts	
Context	Work is conducted with minimal supervision. An individual demonstrating these competencies would be able to: demonstrate some relevant theoretical knowledge; apply a range of well developed skills; apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; interpret available information, using discretion and judgement; take responsibility for one's own output in work and learning; and take limited responsibility for the output of others. Work may involve some responsibility for others. Participation in teams including group or team coordination may be involved. This competency can be assessed in the workplace or in a simulated environment.	

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS023B Provide one to one instruction
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to convey technical information to an individual client for their specific use
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine client need	<ol style="list-style-type: none"> 1. Appropriate questions are asked to determine client need 2. Client instruction requirements are determined
2. Organise instruction resources	<ol style="list-style-type: none"> 1. Instruction requirements are sourced according to organisation guidelines 2. Instruction plan is determined from relevant manuals or documentation 3. Resources are prepared or obtained according to organisation guidelines
3. Provide appropriate instruction	<ol style="list-style-type: none"> 1. Instruction and support are provided to client 2. Instruction and support are documented according to organisation guidelines 3. Further requirements or training needs are referred to supervisor/management/technical area as required
4. Obtain client feedback	<ol style="list-style-type: none"> 1. Client evaluation and feedback are obtained to ensure requirements of client are met 2. Client performs function unassisted according to instruction

RANGE OF VARIABLES	
VARIABLE	SCOPE
Instruction	May include; advice and support on a one-to-one basis; provision of client documentation, manuals; instruction with software supported by the organisation, including but not limited to formatting spreadsheet, creation of graphs, setting up of word processing document for printing, using an E-mail system, browser server; instruction with hardware supported by the organisation, including but not limited to operation of printers, setting of screen resolution, formatting of disks, reconfiguration of printers and use of scanners; instruction does not include delivery of formal accredited training or general classroom/workshop situations; instruction does not include delivery to more than one individual
Further investigation	Can include: On site instruction; Question and answers; Active listening to client and other employees; Referring to technical area Policy and procedures relating to Information Technology training
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.

UNIT	ICAITS023B Provide one to one instruction
-------------	--

OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to convey technical information to an individual client for their specific use in a clear, concise and coherent manner with the meaning of technical jargon fully explained	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Principles of EEO and anti-discrimination • Principles of OH&S • Understanding systems, technical and organisational • Broad general knowledge of operating systems functions and basic features • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Broad knowledge base of escalation procedures • Hardware and software supported by the organisation • Information Technology terminology • Telephone, fax and on-line functions and procedures • Work group procedures • Broad general knowledge of Equal Opportunity legislation • Broad general knowledge of Anti-discrimination legislation • In-house or vendor support available • Security and network guidelines/procedures • Broad general knowledge of Occupational Health and Safety regulations 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Strong customer service • Decision making involving discretion and judgement • Time management for self and others • Problem solving known problems in a variety of contexts • Questioning and active listening for conveying and clarifying information • Literacy skills in regard to interpretation of technical manuals • ICAITS016B

UNIT	ICAITS023B Provide one to one instruction
-------------	--

Resources	Competency is to be assessed through practical demonstration or performance Peers and supervisors for obtaining information on the extent and quality of the contribution made.
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Work is conducted with minimal supervision. An individual demonstrating these competencies would be able to: demonstrate some relevant theoretical knowledge; apply a range of well developed skills; apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; interpret available information, using discretion and judgement; take responsibility for one’s own output in work and learning; and take limited responsibility for the output of others. Work may involve some responsibility for others. Participation in teams including group or team coordination may be involved. This competency can be assessed in the workplace or in a simulated environment.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	1	1	1

UNIT	ICAITS024C Provide basic system administration
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to implement components of systems back-up, restore, security and licensing in a stand alone or client server environment
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITU019B, ICAITS025B, ICAITS012, ICAS021B, ICAITS020C, ICAITB060A, ICAITS031B
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Record security access	<ol style="list-style-type: none"> 1. Client requirements and clearance are obtained according to organisation guidelines 2. Security access password is issued to client 3. Security documentation and access to client is provided 4. Security access is recorded to maintain system integrity
2. Record software licences	<ol style="list-style-type: none"> 1. Licensed software is determined 2. Records of licence number and location are maintained 3. Personal computers and network are checked for illegal software 4. Illegal software is reported to supervisor
3. Carry out system back-up	<ol style="list-style-type: none"> 1. Back-up procedure is determined according to organisation guidelines 2. Back-up is carried out at regular intervals according to organisation specifications 3. Back-up is recorded in line with organisation guidelines
4. Restore system back-up	<ol style="list-style-type: none"> 1. Back-ups are restored 2. Restore procedure is determined according to the organisational guidelines 3. Restores are carried out under supervisor instruction 4. Restores are recorded in line with organisation guidelines
5. Document security access	<ol style="list-style-type: none"> 1. Security access is documented as per clearance guidelines 2. Security access register is maintained in line with organisation guidelines

UNIT	ICAITS024C Provide basic system administration
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Applications	<p>May include presentation applications contained in:</p> <ul style="list-style-type: none"> • Microsoft Office, • Lotus Suite, • Claris Works • Star Office or other similar applications
Keyboarding	<p>Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards</p>
Operating Systems	<p>Command line and Graphical User Interface</p>
Storage media/Disks	<p>May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs</p>
Documentation and Reporting	<p>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates</p>
Hardware	<p>Includes:</p> <ul style="list-style-type: none"> • personal computers, • networked systems, • personal organisers, • communications equipment
Organisational	<p>Variables may include but are not limited to:</p> <ul style="list-style-type: none"> • availability of system to be optimised; • level of complexity of technical manuals, • in-house or vendor; contracting arrangements relating to Information Technology purchasing; • client support documentation; • IT policy and procedures relating to service levels and installation • security procedures, • system administration and back-up procedures, • storage, retrieval and type of product licences; • storage of Information Technology documentation; register of licences, IT security

UNIT	ICAITS024C Provide basic system administration
-------------	---

Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to perform systems back-up, restore and maintain correct usage according to licensing agreements in a stand alone or client server environment	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU019B, ICAITS025B, ICAS021C, ICAITS020C, ICAITB060B, ICAITS031B The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Understanding systems technical and organisational • Broad general knowledge of software copyright responsibilities • Detailed knowledge of organisational security procedures • Broad general knowledge of operating systems supported by the organisation • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Detailed knowledge of back-up procedures • Detailed knowledge of the system's current functionality • One or more change management tools • A broad knowledge base incorporating some theoretical concepts of system performance • A broad knowledge of maintenance procedures • A broad knowledge base incorporating some theoretical concepts of diagnostic tools 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Plain English literacy and communication skills in relation to the presentation of information • Basic diagnostic skills in relation to system administration • Questioning and active listening in regard to clarifying instructions • Basic analytical skills in relation to system administration • Problem solving skills for a defined range of predictable problems • Problem solving in regard to system administration • Inventory recording • ICAITS017B

UNIT	ICAITS024C Provide basic system administration
-------------	---

Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • Security guidelines • Back-up procedures <p>Competence is to be assessed through four system back-up and restore cycles performed with minimum supervision.</p> <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time</p>
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.</p> <p>This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.</p> <p>Work is conducted with minimal supervision. An individual demonstrating these competencies would be able to: demonstrate some relevant theoretical knowledge; apply a range of well developed skills; apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; interpret available information, using discretion and judgement; take responsibility for one's own output in work and learning; and take limited responsibility for the output of others. Work may involve some responsibility for others. Participation in teams including group or team coordination may be involved.</p>

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	2	1	1	1	2

UNIT	ICAITS025B Run standard diagnostic tests
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to conduct diagnostic tests on a range platforms
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Operate system diagnostics	<ol style="list-style-type: none"> 1. Program is run according to specification 2. System is configured as indicated by diagnostics 3. Preventive maintenance is carried out in line with organisation guidelines
2. Scan system for viruses	<ol style="list-style-type: none"> 1. Virus protection is maintained 2. Identified virus is reported to supervisor 3. Virus is removed and information is documented

RANGE OF VARIABLES	
VARIABLE	SCOPE
Preventive maintenance	Includes but is not limited to optimising hard drive and scanning for virus
Organisational	Variables may include but are not limited to: security procedures; logged call procedures; Occupational Health and Safety legislation; preventive maintenance and diagnostic policy; maintenance manuals, in-house or vendor; disposal policy; contracting arrangements relating to Information Technology purchasing
Platforms	Include stand-alone computers, peer to peer networks and client servers
Software	Variables may include but are not limited to: Diagnostic tools and their operation; Virus protection software and operation; Operating systems and modules for configuration; Types of virus and impact
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

UNIT	ICAITS025B Run standard diagnostic tests
-------------	---

Organisational Standards

May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment must confirm the ability to conduct diagnostic tests on a range of platforms according to preventive maintenance and diagnostic policy and to correctly identify the root cause of the problem

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITU019B, ICAITS024C, ICAITS113B, ICAITS021C, ICAITS020C, ICAITS031B The interdependence of units of competency for assessment will vary with the particular project or scenario

Underpinning skills and knowledge**Underpinning knowledge:**

- Understanding systems technical
- A broad knowledge base incorporating some theoretical concepts of configuration procedures
- A broad knowledge base incorporating some theoretical concepts of back-up procedures
- Principles of OH&S
- A broad knowledge base incorporating some theoretical concepts of organisational security procedures
- A broad knowledge base incorporating some theoretical concepts of diagnostic software/hardware
- A broad knowledge base incorporating some theoretical concepts of hardware maintenance
- A broad knowledge base incorporating some theoretical concepts of security procedures
- Broad general knowledge of Occupational Health and Safety legislation

Underpinning skills:

- Problem solving skills for a defined range of predictable problems
- Literacy skills in regard to interpretation of computer manuals
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Use of diagnostic tools

UNIT	ICAITS025B Run standard diagnostic tests
-------------	--

Resources	Competency is to be assessed through practical demonstration or performance. Peers and supervisors for obtaining information on the extent and quality of the contribution made.
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	<p>Work is conducted with minimal supervision. An individual demonstrating these competencies would be able to: demonstrate some relevant theoretical knowledge; apply a range of well developed skills; apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; interpret available information, using discretion and judgement; take responsibility for one’s own output in work and learning; and take limited responsibility for the output of others. Work may involve some responsibility for others. Participation in teams including group or team coordination may be involved.</p> <p>This competency can be assessed in the workplace or in a simulated environment.</p>

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICAITS029B Install network hardware to a network
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to plan, manage and support the installation of new components in a network
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine hardware requirements of clients	<ol style="list-style-type: none"> 1. Client's hardware requirements are assessed in line with current application and operating system 2. Requirements are analysed against LAN limitations and organisational requirements 3. Client requirements are evaluated in line with organisational guidelines, corporate purchasing, licensing arrangements, and budget
2. Obtain hardware	<ol style="list-style-type: none"> 1. Vendors are contacted and technical specifications are obtained 2. Hardware is evaluated/tested in line with client and organisation requirements 3. Recommendations are documented and provided to appropriate personnel 4. Licensing requirements and security issues are determined 5. Hardware is purchased to meet recommendations
3. Install network hardware	<ol style="list-style-type: none"> 1. Installation is conducted with minimal disruption to clients 2. Hardware is installed in accordance with installation procedures 3. Installation is configured and tested to ensure client needs are met
4. Provide support for installed products	<ol style="list-style-type: none"> 1. Client's instruction needs are determined and are documented 2. One to one instruction to client is provided as required 3. Client evaluation and feedback are obtained to ensure requirements are met
5. Determine and provide instruction and support	<ol style="list-style-type: none"> 1. Group instruction requirements are determined and documented 2. Group training is determined to meet client requirements and referral is made 3. Client and group evaluation and feedback are obtained to ensure requirements are met

UNIT	ICAITS029B Install network hardware to a network
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

Operating systems	Include stand alone PC systems and network operating systems
Hardware	Variables may include but are not limited to: personal computers; peer to peer networks; client servers (includes LAN and excludes WAN); printers, print servers, monitors; I/O devices, network cards, cables, routers, switches, disks drives, memory, CPU upgrades, CD ROM and scanners
Organisation	Variables may include but are not limited to: contracting arrangements relating to purchasing Information Technology; storage of Information Technology equipment and documentation; technical manuals, in-house, product and vendors; configuration procedures; security procedures; storage and retrieval of product licences; IT training policy; testing policy and procedures; service/support agreements - internal and external
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to install a range of hardware, by planning, managing and supporting the installation of new components in a network according to organisational policy and procedures
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITI097A, ICAITS114B, ICAITS020C, ICAITS107B, ICAITS112B The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT

ICAITS029B Install network hardware to a network

Underpinning skills and knowledge**Underpinning knowledge:**

- Detailed knowledge of current industry accepted network protocols
- A broad knowledge base incorporating current industry accepted network hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- A broad knowledge base incorporating current industry security products, devices and procedures with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Detailed knowledge of the operating system
- Broad general knowledge of the client business domain
- LAN capabilities
- Organisational contracting procedures and responsibilities
- Broad general knowledge of the principles of OH&S
- Broad general knowledge of Occupational Health and Safety regulations
- Detailed knowledge of Network linkages
- Detailed knowledge of set up and configuration procedures
- Detailed knowledge of software packages supported by the organisation
- Detailed knowledge of installation procedures
- Broad general knowledge of system diagnostic software

Underpinning skills:

- Apply customer service skills in a range of contexts at various levels
- Solving unknown problems in a range of contexts
- Interpretation of technical computer installation manuals
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Change management skills in relation to maintaining the continuity of IT operations and business functions
- Questioning and active listening skills to convey and clarify complex information
- Evaluation and report writing skills involving analysis
- Diagnostic software usage
- ICAITS021C

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Work is conducted without supervision if routine, under minimal supervision if non-routine. An individual demonstrating these competencies would be able to: demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; apply solutions to a defined range of unpredictable problems; determine and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; determine, analyse and evaluate information from a variety of sources; take responsibility for one's own output in relation to specified quality standards; and take limited responsibility for the quantity and quality of the output of others.

This competency can be assessed in the workplace or in a simulated environment.

UNIT

ICAITS029B Install network hardware to a network**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS030B Install software to networked computers
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to plan, manage and support the installation of software to networked computers
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine client's software or software upgrade requirements	<ol style="list-style-type: none"> 1. Client's software requirements are assessed in line with current application and operating system 2. Client's requirements are evaluated in line with organisation guidelines, corporate purchasing, licensing arrangements, and budget
2. Obtain software or software upgrade	<ol style="list-style-type: none"> 1. Vendors are contacted and technical specifications are obtained 2. Recommendations are documented and provided to appropriate personnel 3. Licensing requirements and security issues are determined and recorded
3. Install software or software upgrade	<ol style="list-style-type: none"> 1. Upgrades are installed to meet needs as recommended, including management of existing data 2. Procedures are followed so that clients experience minimal disruption. 3. Software licences and manuals are stored according to organisation guidelines
4. Determine and provide instruction and support	<ol style="list-style-type: none"> 1. Client instruction requirements are determined and are documented 2. One to one instruction to client is provided as required 3. Group training to meet client requirements is determined and referral is made 4. Client evaluation and feedback is obtained to ensure client training and support requirements are met

UNIT	
UNIT	ICAITS030B Install software to networked computers
RANGE OF VARIABLES	
VARIABLE	SCOPE
Networks	Include those supported by the organisation
Operating systems	Include stand-alone PC systems and network operating systems
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, mail, communication packages and presentation functionalities; nature of licence
Hardware	Includes personal computers, peer to peer networks, client servers (include LAN and exclude WAN)
Organisation	Variables may include but are not limited to: contracting arrangements relating to purchasing Information Technology; security procedures; storage and retrieval of product licences; storage of software applications and documentation; technical manuals, in-house, product and vendors; configuration procedures IT training policy
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to plan, manage and support the installation of software to networked computers to sustain network performance
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU019B, ICAITS024C, ICAITS012, ICAITS021C, ICAITS020C, ICAITS032B, ICAITS034B, ICAITS030B, ICAITU127A, ICAITS108B The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITS030B Install software to networked computers	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • Understanding systems, technical • Broad general knowledge of organisational contracting procedures and responsibilities • Broad knowledge base incorporating theoretical concepts of organisational security procedures • Broad knowledge base incorporating theoretical concepts of network linkages • Broad general knowledge of set up and configuration procedures • Detailed knowledge of the operating system • Detailed knowledge of current industry accepted network protocols • A broad knowledge base incorporating current industry accepted network hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas 	Underpinning skills: <ul style="list-style-type: none"> • Solving unknown problems in a range of contexts • Evaluation and report writing skills involving analysis • One to one instruction • Questioning and active listening to convey and clarify complex information • Literacy in general and technical workplace documentation • ICAITS020B
Resources	Competency is required on a range of software, both in a DOS and GUI environment and with the installation of at least four different applications. Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts	
Context	<p>Work is conducted without supervision if routine, under minimal supervision if non-routine. An individual demonstrating these competencies would be able to: demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; apply solutions to a defined range of unpredictable problems; determine and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; determine, analyse and evaluate information from a variety of sources; take responsibility for one's own output in relation to specified quality standards; and take limited responsibility for the quantity and quality of the output of others.</p> <p>This competency can be assessed in the workplace or in a simulated environment.</p>	

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS031B Provide advice to clients
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to convey comprehensive technical information to clients
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Analyse client support issues	<ol style="list-style-type: none"> 1. Logged requests are answered in accordance with organisation guidelines 2. Client support issues are investigated and documented in accordance with organisation guidelines 3. Previous logs are checked for similar problem by same or other client
2. Provide advice on software	<ol style="list-style-type: none"> 1. Client requirements are confirmed 2. Advice is determined and provided or client is referred for further technical assistance 3. Advice is provided to client to overcome software problem in line with organisation guidelines 4. Manuals and help documentation are provided to client 5. Group or one to one instruction is provided, as required 6. Upgrade requirements or new software requirements are documented and recommendations are referred to supervisor/management
3. Provide advice on hardware	<ol style="list-style-type: none"> 1. Client requirements are obtained from documentation 2. Advice is provided to client to overcome hardware problem in line with organisation guidelines 3. Manuals and help documentation are provided to client 4. Group or one to one instruction is provided, as required 5. Further requirements are documented, such as new equipment requirements, recommendations are referred to supervisor/management

UNIT	ICAITS031B Provide advice to clients
4. Provide advice on network	<ol style="list-style-type: none"> 1. Client requirements are obtained from documentation 2. Advice and support are provided to client to overcome network problem in line with organisation guidelines 3. Manuals and help documentation are provided to client 4. Group or one to one instruction is provided, as required 5. Further requirements are documented and recommendations are referred to supervisor/management
5. Obtain client feedback	<ol style="list-style-type: none"> 1. Client evaluation and feedback are obtained to ensure client requirements are met 2. Function is performed by client unassisted according to instruction

RANGE OF VARIABLES	
VARIABLE	SCOPE
Advice and support	Can include: provision of client documentation, manuals; one to one training; identification of training need for referral to supervisor; documentation from vendor; advice on software supported by the organisation, including but not limited to use of macros, statistical functions of a spreadsheet, creation of a template, generation of a complex report on a database, password and log on procedure; advice on hardware supported by the organisation, including but not limited to printers, lap tops, notebooks, CD-ROM, screens, disk drives, reconfiguration of settings, operation of scanners
Further investigation	Can include: On site examination; Questions and answers; Active listening to client and other employees; Contacting vendor or maintenance contract organisations; Referring to technical area
Software	Includes commercial software supported by the organisation and their operation
Organisational	Variables may include but are not limited to: client service standards; client liaison policy; technical manuals, in-house, product and vendors; IT training policy and procedures
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to convey comprehensive technical information to clients in a clear, concise and coherent manner. Assessment must confirm the ability to access technical manuals and help documentation and conveying this information to the client in a concise and jargon free manner. Information conveyed enhances client efficiency
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITS031B Provide advice to clients
-------------	---

Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Operating systems supported by the organisation • Advanced features and functions of software • Information sources • Contract and service agreements with vendors • Principles of OH&S • Operating systems functions and basic features • Hardware and software supported by the organisation • Features of different types of hardware • Advanced knowledge of software features supported by the organisation • Security and network guidelines/procedures • Available in-house and vendor support • Occupational Health and Safety legislation relating to the use of equipment 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Writing macros and templates • One to one instruction • Client needs assessment methods • Interpretation of technical manuals • Verbal and non-verbal communication skills to convey and clarify complex information • Apply customer service skills in a range of contexts at various levels
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competency to be assessed over three months through practical demonstration. Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts	
Context	<p>Work is conducted without supervision if routine, under minimal supervision if non-routine. An individual demonstrating these competencies would be able to: demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; apply solutions to a defined range of unpredictable problems; determine and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; determine, analyse and evaluate information from a variety of sources; take responsibility for one’s own output in relation to specified quality standards; and take limited responsibility for the quantity and quality of the output of others.</p> <p>This competency can be assessed in the workplace or in a simulated environment.</p>	

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS032B Provide network systems administration
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to technically manage elements of a network
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Provide client access and security	<ol style="list-style-type: none"> 1. Log-ons, passwords and applications file access are provided, and documented in line with organisational security requirements 2. Records of client accounts are evaluated 3. System integrity and security are maintained 4. Virus protection is used in line with organisation recommendations
2. Input into and disseminate disaster recovery plan	<ol style="list-style-type: none"> 1. Input is provided into disaster recovery plan 2. Disaster recovery plan is provided to clients as required
3. Monitor network performance	<ol style="list-style-type: none"> 1. Diagnostic tests are performed 2. Diagnostic information is analysed and acted on 3. Software usage is monitored 4. Illegal software is deleted from the system 5. Hardware response time is monitored 6. Methods for improving efficiency are determined and acted on according to organisation guidelines

RANGE OF VARIABLES	
VARIABLE	SCOPE
Hardware	Includes peer-to-peer networks, personal computers and client servers
Software	Includes any software licensed by the organisation
Diagnostic tools	Include those supported by the organisation
Organisation	Variables may include but are not limited to: security procedures; storage and retrieval of product licences; storage of Information Technology equipment and documentation; technical manuals, in-house, product and vendors; notification on illegal software; preventive maintenance and diagnostic policy; virus removal policy; disaster recovery plan Content of disaster recovery plan will vary from organisation to organisation

UNIT	ICAIT032B Provide network systems administration
-------------	---

Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm competence in sustaining the operation of the network through maintenance of network integrity and the performing of diagnostic tests. Assessment must also confirm competency in contributing to the formulation of a disaster recovery plan and providing the client with an optimised network that complies with organisational guidelines.	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU018B, ICAITS023B, ICAITU019B, ICAITU126A, ICAITD128A, ICAITS020C, ICAITS025B, ICAITS024C The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • Understanding systems organisational and technical • Organisational access and security procedures • Software copyright responsibilities • Operating systems supported by the organisation • Operating system’s functions and basic features • Organisational procedures for protection against and elimination of computer viruses • Advanced knowledge of software features supported by the organisation • Security and network guidelines/procedures • Policy and procedures for deleting, restoring and archiving of files • Approaches to back up and restoring computer data • Disaster recovery policy • Procedures for creating logons • File access • Available in-house and vendor support • Occupational Health and Safety legislation relating to the use of equipment 	Underpinning skills <ul style="list-style-type: none"> • Interpretation of technical manuals • One to one instruction • Questioning and active listening to convey and clarify information • Client needs assessment methods • Verbal and non-verbal communication skills to convey and clarify complex information • Apply customer service skills in a range of contexts at various levels • Diagnostic skills
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	

UNIT	ICAITS032B Provide network systems administration
-------------	--

Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.</p> <p>Competency is to be assessed through practical demonstration or performance</p>
Context	<p>Work is conducted without supervision if routine, under minimal supervision if non-routine. An individual demonstrating these competencies would be able to: demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; apply solutions to a defined range of unpredictable problems; determine and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; determine, analyse and evaluate information from a variety of sources; take responsibility for one's own output in relation to specified quality standards; and take limited responsibility for the quantity and quality of the output of others. This competency can be assessed in the workplace or in a simulated environment.</p>

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS033B Assist with policy development for client support procedures
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to contribute to the formulation of client support procedures to be included within organisational policy
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine support issues	<ol style="list-style-type: none"> 1. Clients are contacted on a regular basis to ensure needs are being met 2. Client feedback is documented in line with organisation guidelines 3. Client issues are analysed and analysis is forwarded to management 4. Results of network performance systems are analysed and analysis is forwarded to management
2. Determine management requirements	<ol style="list-style-type: none"> 1. Organisational strategic plans are accessed 2. Current client policies are accessed in line with organisation guidelines 3. New services, hardware & software requirements are assessed for future projects
3. Provide recommended changes for client support policy	<ol style="list-style-type: none"> 1. Report is prepared recommending changes in policies and the impact on clients in a clear and concise manner. 2. The report is forwarded to supervisor
4. Update documented client support policy	<ol style="list-style-type: none"> 1. Policies are amended to meet requirements 2. Policies are issued to all organisation areas in line with organisation guidelines 3. Policy updates are maintained in line with organisation guidelines

UNIT	ICAITS033B Assist with policy development for client support procedures
-------------	--

RANGE OF VARIABLES	
--------------------	--

VARIABLE	SCOPE
Organisational	Variables may include but are not limited to: client service standards; complaints handling policy; client liaison policy; security procedures; logged call procedures; Occupational Health and Safety legislation; preventive maintenance and diagnostic policy; disposal policy; disaster recovery plan; virus removal; contracting arrangements relating to Information Technology purchasing
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
----------------	--

Critical aspects of evidence	Competency is demonstrated by performance, taking into account the possible range of variables and stated performance criteria, in the following manner: Candidate will demonstrate competency through contributing to the formulation of client support procedures, taking account of existing policy, procedures and emerging client needs	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • Organisational guidelines on network maintenance and administration • Understanding systems organisational and technical • Organisational policy on access and security • Organisational strategic plan • Current trends and issues in IT 	Underpinning skills: <ul style="list-style-type: none"> • Interpretation of technical manuals • One to one instruction • Questioning and active listening to convey and clarify complex information • Literacy in regard to general and technical workplace documentation • Report writing involving evaluation and analytical skills

UNIT	ICAITS033B Assist with policy development for client support procedures
-------------	--

Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Competency is to be assessed through practical demonstration or performance</p>
Context	<p>Work is conducted without supervision if routine, under minimal supervision if non-routine. An individual demonstrating these competencies would be able to: demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; apply solutions to a defined range of unpredictable problems; determine and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; determine, analyse and evaluate information from a variety of sources; take responsibility for one’s own output in relation to specified quality standards; and take limited responsibility for the quantity and quality of the output of others.</p> <p>This competency can be assessed in the workplace or in a simulated environment.</p>

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS034B Determine and action network problem
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to document network related problems, determine the required resources, solve the client problem or escalate as necessary
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine client problem	1. Logged call from help desk is received 2. Client problem is determined, further information from client is gained and documented as required by organisation guidelines
2. Determine whether maintenance is covered by policy	1. Maintenance and technical support agreements are determined 2. Organisational policy regarding maintenance is followed
3. Carry out maintenance	1. Diagnostic tests are conducted as required 2. Maintenance is completed in line with organisation guidelines 3. New components are obtained 4. Components are stored or disposed of in accordance with organisation guidelines
4. Prepare maintenance report	1. Maintenance report is prepared in line with organisation guidelines 2. Maintenance requirements to appropriate area are escalated as required

RANGE OF VARIABLES	
VARIABLE	SCOPE
Basic repairs to network	Include: replacing disk drives; repositioning network cards; installing disk drives; installing and reconfiguring printer; replacing I/O devices; reconfiguring network
Organisation	Variables may include but are not limited to: security procedures; logged call procedures; client liaison policy; preventive maintenance and diagnostic policy; maintenance agreements; warranties; contracting arrangements relating to Information Technology purchasing
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.

UNIT	ICAITS034B Determine and action network problem
-------------	--

Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to document network related problems, determine the required resources, solve the client problem or escalate it according to organisational guidelines. The network is to be maintained with minimal disruption to clients.	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS114B, ICAITI097A, ICAITU018B, ICAITS023B, ICAITU019B, ICAITU126A, ICAITD128A, ICAITS020C, ICAITS025B, ICAITS024C The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • Organisation information relating to logging calls, contracting and maintenance arrangements • Inventory processes • Technical support agreements • Understanding systems technical 	Underpinning skills: <ul style="list-style-type: none"> • Diagnostic skills • Solving unknown problems in a range of contexts • Inventory skills • Apply customer service skills in a range of contexts at various levels
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts	
Context	Work is conducted without supervision if routine, under minimal supervision if non-routine. An individual demonstrating these competencies would be able to: demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; apply solutions to a defined range of unpredictable problems; determine and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; determine, analyse and evaluate information from a variety of sources; take responsibility for one’s own output in relation to specified quality standards; and take limited responsibility for the quantity and quality of the output of others. This competency can be assessed in the workplace or in a simulated environment.	

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	2	1	1	2	2

UNIT	ICAITS035C Assist with analysis of emerging technology
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit expresses the competency required to apply technical knowledge in preliminary analysis of emerging technology
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Liaise with vendors, training providers and the Information Technology industry to determine technology to assist organisation	1. Information sources are determined 2. Vendors are determined 3. Information on technology is documented according to its suitability to organisational requirements and continually updated
2. Prepare and present reports as required by management	1. Future requirements are obtained from management 2. Installation requirements are determined 3. Report is prepared in line with budget, time frame and organisational limitations 4. Reports is presented to supervisor/management

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Technology and platforms	Can include operating systems, compilers, software, and hardware (for example new applications, new operating systems)
Organisation	Variables may include but are not limited to: security procedures; contracting arrangements relating to Information Technology purchasing; budgeting and strategic plans; time lines and budgetary constraints
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control

UNIT	
UNIT	ICAITS035C Assist with analysis of emerging technology
Information	<p>Can be sourced from but is not limited to:</p> <ul style="list-style-type: none"> • Vendor seminars, briefing conferences; • Internet – portals, chat room, lists, • on-line trade magazines; • Information Technology on-line consortiums; • electronic media and communications; • liaison with experts; • product demonstrations; • industry trade fairs and conferences
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	<p>Assessment must confirm the ability to apply technical knowledge in the preliminary analysis of emerging technology according to organisational requirements or practices</p> <p>Assessment must confirm the ability to convey and access conceptual information regarding emerging technology in relation to organisational needs</p>		
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.		
Underpinning skills and knowledge	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Current industry and technology information sources • Current business practices in relation to preparing reports • Components of the business planning process relevant to the development of IT business solutions • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • Broad knowledge base of vendor product directions • Broad general knowledge of the client business domain • Broad knowledge base of quality assurance practices • A basic knowledge of information gathering techniques • Industry networks • Key individuals and organisations within the IT industry </td> <td style="vertical-align: top; width: 50%;"> <p>Underpinning skills:</p> <ul style="list-style-type: none"> • Solving unknown problems in a range of contexts • Project planning skills in relation to scope, time, cost, quality, communications and risk management. • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts • Communication skills to convey complex and abstract concepts and information </td> </tr> </table>	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Current industry and technology information sources • Current business practices in relation to preparing reports • Components of the business planning process relevant to the development of IT business solutions • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • Broad knowledge base of vendor product directions • Broad general knowledge of the client business domain • Broad knowledge base of quality assurance practices • A basic knowledge of information gathering techniques • Industry networks • Key individuals and organisations within the IT industry 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Solving unknown problems in a range of contexts • Project planning skills in relation to scope, time, cost, quality, communications and risk management. • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts • Communication skills to convey complex and abstract concepts and information
<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Current industry and technology information sources • Current business practices in relation to preparing reports • Components of the business planning process relevant to the development of IT business solutions • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • Broad knowledge base of vendor product directions • Broad general knowledge of the client business domain • Broad knowledge base of quality assurance practices • A basic knowledge of information gathering techniques • Industry networks • Key individuals and organisations within the IT industry 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Solving unknown problems in a range of contexts • Project planning skills in relation to scope, time, cost, quality, communications and risk management. • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts • Communication skills to convey complex and abstract concepts and information 		

UNIT	ICAITS035C Assist with analysis of emerging technology
-------------	---

Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • Internet • Journals and industry/ professional association <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time</p>
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.</p> <p>This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.</p> <p>Work is conducted without supervision if routine, under minimal supervision if non-routine. An individual demonstrating these competencies would be able to: demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; apply solutions to a defined range of unpredictable problems; determine and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; determine, analyse and evaluate information from a variety of sources; take responsibility for one's own output in relation to specified quality standards; and take limited responsibility for the quantity and quality of the output of others.</p>

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	2	2	2	3	3

UNIT	ICAITS102B Establish and maintain client user liaison
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to establish and maintain client liaison in an IT environment post implementation. This occurs after the business critical functions have been determined
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITS103B, ICAITS104B, ICAITS111B, ICAITI086A, ICAITI087A, ICAITI088B, ICAITI090A
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine the client user areas that are to be supported	<ol style="list-style-type: none"> 1. Extent of the use of IT in client user areas and departments are identified detailing applications, operating systems, hardware, networks, etc. 2. Criticality of IT to the client, and the need for support services are determined 3. Key client users, managers, project sponsors, system owners, etc are identified 4. Organisation structure, culture and politics in relation to support requirements are identified and analysed
2. Develop appropriate method of liaising with client user/group and possible contacts	<ol style="list-style-type: none"> 1. Level and existence of IT skills, experience and willingness to work with IT are identified 2. Most appropriate management styles or approach for the various client user areas are evaluated 3. Person/s who would be suitable for liaising with, either informally or formally is/are identified and specifically nominated 4. Availability, willingness of target nominee is checked, and/or their acceptability is verified
3. Establish contact and develop reporting protocol	<ol style="list-style-type: none"> 1. Dialogue with the contact is initiated and the scope of the liaison agreed to 2. Method of contact, the most appropriate way, timing of meetings, reports, etc are established 3. A higher authority reporting protocol agreeable to all parties is established
4. Maintain established communication links	<ol style="list-style-type: none"> 1. Client user(s) is/are contacted as per pre-determined methods, and rapport and communication channel are established 2. Feedback is actioned and all communiqués resulting from the liaison are confirmed in writing

UNIT	ICAITS102B Establish and maintain client user liaison
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Client	<p>May be:</p> <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party <p>and so the relationship and ease of access will vary.</p>
Liaison methods	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • websites, • web applications, • CRM technologies, • written reports, • group meetings, • one on one meetings, • e-mail, telephone calls, newsletters, etc.
Operating systems	Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare
Consulting techniques	May include: interviews, surveys, chat rooms, focus groups
Analysis Techniques	May include: gap analysis, urgency and impact, statistical and a range of current methodologies
Software and Applications	Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.
Culture	Each organisation has a defined culture that can vary from encouraging open communication between all staff to a strict following of protocol.
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Standards and procedures	May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
Service Level Agreements	<p>Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products.</p> <p>SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units</p>

UNIT	ICAITS102B Establish and maintain client user liaison
-------------	--

Hardware

Can include IT equipment of all types:

- Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems,
- Bridges, 3Com, Compaq, CISCO, IBM
- modems, analog, cable, ISDN, DSL
- servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys
- network cards, Adaptec, ARTIC, Compex, SMC
- switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies
- hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron,
- routers & gateways, 3Com, CISCO, D-Link, Intel,
- File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to establish and maintain client liaison in an IT environment. Evidence of communication and reporting mechanisms consistent with the identified role are agreed to by candidate and client user.

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITS103B, ICAITS104B, ICAITS111B, ICAITI086A, ICAITI087A, ICAITI088B, ICAITI090A The interdependence of units of competency for assessment will vary with the particular project or scenario

Underpinning skills and knowledge

Underpinning knowledge:

- Broad general knowledge of the client business domain
- Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement
- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas

Underpinning skills:

- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts
- Project planning skills in relation to scope, time, cost, quality, communications and risk management
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Customer service skills

Resources

To demonstrate this unit of competence the candidate will require access to:

- Service level agreements
- Documented support requirements

Assessment of this unit of competence could include supplementary questioning of the candidate to identify how support issues were raised and discussed with the client.

Competence in this unit can be assessed in relation to any ongoing client liaison.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

UNIT	ICAITS102B Establish and maintain client user liaison
-------------	--

Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate time to establish and maintain client services.</p>
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.</p> <p>This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.</p> <p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for one's own outputs in relation to specified quality standards; and • take limited responsibility for the quantity and quality of the output of others.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS103B Establish and maintain client user liaison during support activity
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to liaise with a client user while providing support
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITS102B, ICAITS104B, ICAITS111B, ICAITI086A, ICAITI087A, ICAITI088B, ICAITI090A
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify client user liaison procedures	<ol style="list-style-type: none"> 1. Area impacted by the support activity is identified 2. Standards and SLA are reviewed, or otherwise the organisational scope of the issue, departments, users, sponsor etc. are established 3. Organisation structure and culture are identified and are analysed to collect information on client liaison procedure 4. Each component of the requirement is analysed and any necessary actions to start client user liaison are determined
2. Determine appropriate client user to make contact with	<ol style="list-style-type: none"> 1. Support call documentation is reviewed to determine if user making original call should be the contact 2. Existence of client user expert/s or contacts relating to the issue are identified 3. Most appropriate approach for making contact considering standards and procedures is evaluated 4. Person/s with information or responsibility relating to the issue is/are specifically nominated 5. Credentials are checked and the acceptability of the target nominee/s is verified
3. Establish contact and develop reporting protocol	<ol style="list-style-type: none"> 1. Dialogue is initiated with the contact and the scope of the liaison for solving this support issue is agreed upon 2. Method of contact and the times for contact are established 3. Higher authority reporting protocol is established agreeable to all parties, taking into account escalation standards
4. Maintain established communication links	<ol style="list-style-type: none"> 1. Reporting protocol during the support activity is maintained 2. Feedback is actioned and all communiqués resulting from the liaison are confirmed

UNIT	ICAITS103B Establish and maintain client user liaison during support activity
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Client	<p>May be:</p> <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party <p>and so the relationship and ease of access will vary.</p>
Liaison methods	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • websites, • web applications, • CRM technologies, • written reports, • group meetings, • one on one meetings, • e-mail, telephone calls, newsletters, etc.
Service Level Agreements	<p>Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products.</p> <p>SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units</p>
User contacts	<p>These may be senior managers or more junior staff. The type and quality of decisions made will be determined by the seniority of staff.</p>
Software and Applications	<p>Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.</p>
Hardware	<p>Can include IT equipment of all types – PCs, printers, mid range, mainframe, communications equipment. Generally the larger and more expensive the equipment, the less likely in-house expertise will be available and the supplier will be relied on for support.</p>
Operating systems	<p>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare</p>
Documentation and Reporting	<p>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates</p>

UNIT	ICAITS103B Establish and maintain client user liaison during support activity
-------------	--

Standards and procedures	May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Culture	Each organisation has a defined culture that can vary from encouraging open communication between all staff to a strict following of protocol.

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to liaise with a client user while providing support coherent with the agreed standards.	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS102B, ICAITS104B, ICAITS111B, ICAITI086A, ICAITI087A, ICAITI088B, ICAITI090A The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • Broad knowledge of help desk and maintenance practices • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement • Broad general knowledge of the client business domain • Detailed knowledge of the system’s current functionality • Broad knowledge base of quality assurance practices 	Underpinning skills: <ul style="list-style-type: none"> • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts • Project planning skills in relation to scope, time, cost, quality, communications and risk management • Negotiation skills in relation to other team members and applied to a defined range of predictable problems • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Customer service skills
Resources	To demonstrate this unit of competence the candidate will require access to: <ul style="list-style-type: none"> • Service level agreements • Escalation procedure • Documentation processes <p>Assessment of this unit of competence could include supplementary questioning of the candidate to identify how client liaison was maintained during the support activity.</p> <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence by obtaining information on the extent and quality of the contribution made. Observation of skills may assist in the collection of evidence.</p>	

UNIT	ICAITS103B Establish and maintain client user liaison during support activity
-------------	--

Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to maintain client liaison and develop a decision making process for identifying the appropriateness of target nominee.</p> <p>Competence in this unit can be assessed in relation to any client liaison established for the purposes of providing support</p>
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.</p> <p>This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.</p> <p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for one’s own outputs in relation to specified quality standards; and • take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	2	3	2	3	2

UNIT	ICAITS104B Determine maintenance coverage
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to identify maintenance strategies and supporting processes to maintain continuity of IT operations and business functions
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS103B, ICAITS104B, ICAITS111B, ICAITI086A, ICAITI088B, ICAITI090A
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse business maintenance needs	<ol style="list-style-type: none"> 1. Risks to business continuity of system malfunction are identified to quantify possible loss. 2. Core business functions are identified and service requirements determined 3. Maintenance philosophy is developed to meet business needs and is supplied to external client
2. Identify and analyse IT components and /or software to be maintained	<ol style="list-style-type: none"> 1. Systems architecture and configuration documentation is reviewed for currency 2. Equipment and /or software audit is conducted, if appropriate information is not available 3. The warranty status of any components and /or software is determined and documented according to project or company requirements 4. Critical IT components and/or software are identified and recommendations on possible service arrangements are documented
3. Develop service level agreements	<ol style="list-style-type: none"> 1. The views and requirements of client users are determined to identify maintenance requirements 2. Service Level Agreements are prepared to match user and business requirements
4. Formulate maintenance strategy	<ol style="list-style-type: none"> 1. Maintenance options are examined against cost constraints, risks to business continuity and Service Level Agreements 2. A specific maintenance strategy is identified based on cost, business and SLA requirements 3. A preventive maintenance schedule is determined on cost, business and SLA requirements 4. Maintenance strategy is agreed with client users and changes are made to SLA where necessary 5. Recommended strategy is documented for higher level approval according to company requirements

UNIT	ICAITS104B Determine maintenance coverage
5. Define customer and supplier processes and standards	<ol style="list-style-type: none"> 1. Reporting procedures for service requests are determined with client and supplier/s taking into account business continuity and criticality of IT components and /or software 2. Response time standards are determined with client and supplier/s taking into account business continuity and criticality of IT components and /or software 3. Escalation procedures are determined with client and supplier/s taking into account business continuity and criticality of IT components and /or software 4. Help Desk or other support function is set up in accordance with agreed standards and procedures and in line with industry best practices.

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Service Level Agreements	<p>Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products.</p> <p>SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units</p>
Documentation and Reporting	<p>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates</p>
Client	<p>May be:</p> <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party <p>and so the relationship and ease of access will vary.</p>

UNIT	ICAITS104B Determine maintenance coverage
Liaison methods	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • websites, • web applications, • CRM technologies, • written reports, • group meetings, • one on one meetings, • e-mail, telephone calls, newsletters, etc.
Installation responsibilities	Will vary according to supplier proposal. Can include installation by supplier or be considered customer installable
Warranty	Will vary from supplier to supplier and component to component. Legal document which defines rights (support v replacement) during a pre-determined period after customer acceptance of component/s
Support Requirements	Can include but is not limited to: inclusion into maintenance agreement, training both one to one and in groups
Standards and procedures	May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to determine maintenance strategies and support processes to maintaining the continuity of IT operations and business functions that relate directly to the core business functions and other business support functions
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS103B, ICAITS104B, ICAITS111B, ICAITI086A, ICAITI088B, ICAITI090A The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT

ICAITS104B Determine maintenance coverage

Underpinning skills and knowledge

Underpinning knowledge

- Broad knowledge of help desk and maintenance practices
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement
- Broad general knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices

Underpinning skills

- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Change management skills in relation to maintaining the continuity of IT operations and business functions
- Customer service skills in relation to maintaining the continuity of IT operations and business functions
- Handling difficult clients skills in relation to maintaining the continuity of IT operations and business functions
- Conflict resolution skills in relation to maintaining the continuity of IT operations and business functions
- Risk analysis skills in relation to maintaining the continuity of IT operations and business functions

Resources

To demonstrate this unit of competence the candidate will require access to:

- Systems architecture documentation
- Warranty documents

Assessment of this unit of competence could include review of documents developed by the candidate, which relate to work processes and procedures, and quality projects. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

UNIT	ICAITS104B Determine maintenance coverage
-------------	--

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to address the ongoing implementation and monitoring aspects of this unit.

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

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 co-ordination.

The 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 co-ordination may be involved.

An individual demonstrating these competencies 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; and
- take limited responsibility for the achievement of group outcomes.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS105B Coordinate change requests
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to analyse change requests and prioritise them.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Classify and monitor change requests	<ol style="list-style-type: none"> 1. Change requests issued by the client are received 2. All change requests are classified and prioritised according to business continuity, criticality of IT components and Service Level Agreements
2. Determine priority settings	<ol style="list-style-type: none"> 1. Risks to business continuity are identified and changes which reduce this are prioritised for implementation 2. The costs and benefits of implementing changes over others are evaluated against current system 3. Change analysis is scheduled in accordance with business down periods and periods of business critical activities
3. Develop change analysis work-plan to develop and implement changes	<ol style="list-style-type: none"> 1. Benefits and costs of how and when change is made are examined against risks to business continuity 2. Similar change requests which might be developed and implemented simultaneously are analysed against business and system requirements 3. The impact to the system and the organisation of how and when the change is made, is determined against system and business requirements 4. Reason for importance of change to key people is communicated, and information is circulated 5. The resources necessary to carry out the change development process are determined taking into account time and cost constraints, and change requests are handed to technical group.
4. Confirm change plan is complete and satisfies client users.	<ol style="list-style-type: none"> 1. Change plan documentation is reviewed to ensure all completed in accordance with system documentation standards 2. Feedback session is conducted with client users group to ensure all changes plan requirements are going to work. 3. Any follow-up work is completed and any recommendations for change in procedures or documentation standards are made

UNIT	ICAITS105B Coordinate change requests
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Type of change	Changes could range from fixing a serious problem that stops the system functioning to a minor request for a cosmetic change. Changes could relate to hardware and software.
Service Level Agreements	<p>Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products.</p> <p>SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units</p>
Client	<p>May be:</p> <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party <p>and so the relationship and ease of access will vary.</p>
Maintenance options	<p>Maintenance options can include:</p> <ul style="list-style-type: none"> • on-site response, • remote diagnostics, • return to depot, • business hours only support, • 24x7 hours support, • telephone support, • real-time on line support, • second level support.
Reporting procedures	<p>Help desk and maintenance structures will vary. Some may be:</p> <ul style="list-style-type: none"> • a call centre or a general contact point that then calls a supplier or other technician, • a call centre staffed by technicians capable of solving the problem, • real-time on-line support, • web based support. <p>Documentation and other procedures will vary.</p>

UNIT	ICAITS105B Coordinate change requests
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, Cnet, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Cnet, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,.
Software and Applications	Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
EVIDENCE GUIDE	
Critical aspects of evidence	<p>Assessment must confirm sufficient knowledge of one or more change management systems</p> <p>Assessment must confirm the ability to review change procedures and make recommendations where required. Assessment must confirm consistency of performance</p>
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS105B, ICAITS111B, ICAITS118B, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITS116B, ICAITS035C The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITS105B Coordinate change requests	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Broad knowledge of help desk and maintenance practices • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement • Broad general knowledge of the client business domain • Detailed knowledge of the system's current functionality • Broad knowledge base of quality assurance practices • One or more change management tools 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts • Negotiation skills in relation to other team members and applied to a defined range of predictable problems • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Change management skills in relation to maintaining the continuity of IT operations and business functions • Customer service skills in relation to reviewing change procedures • Handling difficult clients skills in relation to reviewing change procedures • Conflict resolution skills in relation to reviewing change procedures • Risk analysis skills in relation to reviewing change procedures
Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • Service level agreements • Business requirements • Documentation standards <p>Assessment of this unit of competence could include review of documents developed by the candidate, which relate to work processes and procedures, and quality projects. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>	

UNIT	ICAITS105B Coordinate change requests
------	---------------------------------------

Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to evaluate and prioritise requests and undertake the monitoring aspects of this unit.</p>
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.</p> <p>This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.</p> <p>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 co-ordination.</p> <p>The 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.</p> <p>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 co-ordination may be involved.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • 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; and • take limited responsibility for the achievement of group outcomes.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	2	3	3

UNIT	ICAITS106B Action and complete change requests
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to take change requests and carry out the change requirements.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS106B, ICAITS111B, ICAITS118B, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITT066A, ICAITS116B, ICAITS035C
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Review change requests	<ol style="list-style-type: none"> 1. Fault details are collected and reviewed from sources such as change requests, fault reports, help desk reports, etc. 2. Technical data is obtained from software traces, dumps, error messages and other information to assist in identifying change. 3. The nature of the change is clarified with client user personnel where necessary
2. Modify system to accept changes	<ol style="list-style-type: none"> 1. Details of selected system changes are reviewed against current and future business requirements 2. System changes are designed, coded, and documented according to standards and procedures. If it is a hardware change then equipment is installed in accordance with manufacturer's recommendation. 3. Appropriate client user and technical documentation is revised to reflect system changes according to documentation and client user requirements 4. System changes are tested and completed according to current and future system requirements
3. Prepare and deliver training	<ol style="list-style-type: none"> 1. Training is prepared to meet the training requirements of clients in using the changes 2. Training to clients to use the changes is delivered
4. Complete status evaluation	<ol style="list-style-type: none"> 1. System effectiveness is evaluated to determine if maintenance activities should be minimised and replacement activities should begin 2. Recommendations on system effectiveness are documented for higher authority consideration

UNIT	ICAITS106B Action and complete change requests
5. Implement changes	<ol style="list-style-type: none"> 1. Back-up and recovery plan to protect against implementation failure is developed taking into account business continuity and criticality of IT components 2. Training materials are updated to reflect changes and client user training requirements 3. Changes for acceptance into production system are reviewed against technical requirements 4. Changes are introduced into production system according to business requirements 5. Change requests and other system documentation are completed and updated.

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Type of change	Changes could range from fixing a serious problem that stops the system functioning to a minor request for a cosmetic change. Changes could relate to hardware and software.
Service Level Agreements	Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products. SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units
Client	May be: <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party and so the relationship and ease of access will vary.
Software and Applications	Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.
Standards and procedures	May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates

UNIT	ICAITS106B Action and complete change requests
Maintenance options	<p>Maintenance options can include:</p> <ul style="list-style-type: none"> • on-site response, • remote diagnostics, • return to depot, • business hours only support, • 24x7 hours support, • telephone support, • real-time on line support, • second level support.
Reporting procedures	<p>Help desk and maintenance structures will vary. Some may be:</p> <ul style="list-style-type: none"> • a call centre or a general contact point that then calls a supplier or other technician, • a call centre staffed by technicians capable of solving the problem, • real-time on-line support, • web based support. <p>Thus, documentation and other procedures will vary.</p>
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, Cnet, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Cnet, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,.
OH and S Standards	<p>As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency</p>

UNIT

ICAITS106B Action and complete change requests

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm sufficient technical knowledge of one or more change management systems.
Assessment must confirm the ability to implement change procedures. Assessment must confirm consistency of performance

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITS106B, ICAITS111B, ICAITS118B, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITT066A, ICAITS116B, ICAITS035C.
The interdependence of units of competency for assessment will vary with the particular project or scenario

Underpinning skills and knowledge**Underpinning knowledge**

- Broad knowledge of help desk and maintenance practices
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement
- Broad general knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices
- One or more change management tools
- A broad knowledge base incorporating some theoretical concepts of system testing

Underpinning skills

- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Change management skills in relation to maintaining the continuity of IT operations and business functions
- Customer service skills in relation to reviewing change procedures
- Handling difficult clients skills in relation to reviewing change procedures
- Conflict resolution skills in relation to reviewing change procedures
- Risk analysis skills in relation to reviewing change procedures
- Low level training needs analysis skills
- Low level programming language

UNIT	ICAITS106B Action and complete change requests
Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • Change request documentation • Physical system or network • Current business requirements • Documentation standards <p>Assessment of this unit of competence could include review of documents developed by the candidate, which relate to work processes and procedures, and quality projects. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to address the documentation and communication skills required in this unit.</p>
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.</p> <p>This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.</p> <p>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 co-ordination.</p> <p>The 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.</p> <p>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 co-ordination may be involved.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • 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; and • take limited responsibility for the achievement of group outcomes.

UNIT

ICAITS106B Action and complete change requests**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	3	3	3

UNIT	ICAITS107B Rectify system faults on a live system
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to manage reactive errors and failures on a live system.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS124A, ICAITS112B, ICAITS030B, ICAITU127A, ICAITS114B, ICAITS020C, ICAITS029B, ICAITU126A, ICAITS034B, ICAITI100A
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine maintenance methodologies and repositories	<ol style="list-style-type: none"> 1. Main types of system modifications to be actioned are identified, such as error correction, system recovery, assistance and enhancement 2. Existence and currency of repositories such as central repository, program library, and databases are confirmed. If these have changed, new back-up procedures are developed 3. Modification request forms and level of authorities required are prepared or checked 4. Hierarchy of modifications and the response for each is developed, ie system crash requires immediate response. 5. Back-up and blackout strategies in place are determined
2. Implement change management system	<ol style="list-style-type: none"> 1. Standards and procedures for logging the change request are followed 2. Expected impact to the user base during implementation is documented 3. Levels of possible failure and the related reporting procedures are identified 4. Expected outcomes of the modification/s are documented 5. Users are informed of modification implications 6. Modification is assigned to appropriate support staff
3. Report review of results	<ol style="list-style-type: none"> 1. All aspects of the change system are completed and modification is fully tested and operational 2. Report to the appropriate person is prepared indicating the results of modifications 3. All documentation and repositories are updated and amended

UNIT

ICAITS107B Rectify system faults on a live system

RANGE OF VARIABLES

VARIABLE

SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Type of change	Changes could range from fixing a serious problem that stops the system functioning to a minor request for a cosmetic change. Changes could relate to hardware and software.
Service Level Agreements	Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products. SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units
Client	May be: <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party <p>and so the relationship and ease of access will vary.</p>
Reporting procedures	Help desk and maintenance structures will vary. Some may be: <ul style="list-style-type: none"> • a call centre or a general contact point that then calls a supplier or other technician, • a call centre staffed by technicians capable of solving the problem, • real-time on-line support, • web based support. <p>Thus, documentation and other procedures will vary.</p>
Software and Applications	Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.
Standards and procedures	May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Software and Applications	Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

UNIT	ICAITS107B Rectify system faults on a live system
-------------	--

Maintenance options

Maintenance options can include:

- on-site response,
- remote diagnostics,
- return to depot,
- business hours only support,
- 24x7 hours support,
- telephone support,
- real-time on line support,
- second level support.

Hardware

Can include IT equipment of all types:

- Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems,
- Bridges, 3Com, Compaq, CISCO, IBM
- modems, analog, cable, ISDN, DSL
- servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys
- network cards, Adaptec, ARTIC, Compex, SMC
- switches, 3Com, Accton, Cabletron, CISCO, Cnet, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies
- hubs & repeaters, 3Com, Compaq, CISCO, Cnet, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron,
- routers & gateways, 3Com, CISCO, D-Link, Intel,
- File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,.

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence

Assessment must confirm the ability to identify the expected outcomes of the modification and demonstrate the steps involved in the implementation of the modification. The candidate must have a good knowledge of the implications of success and failure of the proposed modification and what steps or procedures to carry out in each of these scenarios.

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITS124B, ICAITS112B, ICAITS030B, ICAITU127A, ICAITS114B, ICAITS020C, ICAITS029B, ICAITU126A, ICAITS034B, ICAITI100A. The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT

ICAITS107B Rectify system faults on a live system

Underpinning skills and knowledge

Underpinning knowledge

- Broad knowledge of help desk and maintenance practices
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement
- Broad general knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices
- One or more change management tools
- A broad knowledge base incorporating some theoretical concepts of system testing
- A broad knowledge base incorporating some theoretical concepts of change control procedures
- Detailed knowledge of the system under modification

Underpinning skills

- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Change management skills in relation to maintaining the continuity of IT operations and business functions
- Customer service skills in relation to reviewing change procedures
- Handling difficult clients skills in relation to reviewing change procedures
- Conflict resolution skills in relation to reviewing change procedures
- Risk analysis skills in relation to reviewing change procedures
- Low level training needs analysis skills
- Low level programming skills

Resources

To demonstrate this unit of competence the candidate will require access to:

- A live system
- Procedures for logging change requests

Assessment of this unit of competence could include review of documents developed by the candidate, which relate to work processes and procedures, and quality projects. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

UNIT	ICAITS107B Rectify system faults on a live system
-------------	--

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to address the ongoing implementation and monitoring aspects of this unit.

Context

Competence in this unit can be assessed in a live environment provided the assessor has a prior knowledge of the outcome. Or simulated or firewalled environment.

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

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 co-ordination.

The 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 co-ordination may be involved.

An individual demonstrating these competencies 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; and
- take limited responsibility for the achievement of group outcomes.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	2	3	3

UNIT	ICAIT108B Complete database back-up and recovery
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to fully back-up and recover a database
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS020C, ICAITU127B, ICAITS113B, ICAITB061A, ICAITS024C, ICAITS106B, ICAITS125B, ICAITS030B, ICAITU126B, ICAITS107B
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Review database architecture	<ol style="list-style-type: none"> 1. Architectural implications for back-up and recovery are identified 2. Various failure scenarios and risks are identified and examined
2. Determine back-up methods appropriate to database requirements	<ol style="list-style-type: none"> 1. A range of back-up and restoration methods based on organisational and security requirements are evaluated 2. Full offline back-ups are completed to organisational and security requirements with minimal down time 3. On-line file back-ups are completed to organisational and security needs with minimal down time
3. Determine baselines and recovery procedures	<ol style="list-style-type: none"> 1. Database baseline with and without archiving is determined according to organisational requirements 2. Database is fully recovered to baseline with minimal down time 3. Database recovery without loss of committed transactions is completed 4. If possible, point of failure recovery is successfully completed
4. Employ database alternatives	<ol style="list-style-type: none"> 1. Standby database is created or prepared to meet organisational requirements 2. Standby database is implemented to support critical business functions 3. Standby database is documented

UNIT	ICAITS108B Complete database back-up and recovery
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Database options	<p>Can include but not limited to:</p> <ul style="list-style-type: none"> • relationship databases, • object-relational databases, • proprietary databases, • off the shelf database packages
Tools	<p>Variables may include but are not limited to: vendor specific database administration tools. Tools include any item or tool used to administer databases.</p> <p>The most appropriate administration tool employed in the most efficient manner.</p>
Databases	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • Oracle, • Sybase, • Microsoft SQL Server, • Ingres, • DB2, • Informix, mSQL, MySQL, SQL Server etc
SQL	<p>May include proprietary extensions. AS/NZS 3968.0:1994 Information technology - Database languages - SQL - Definition of data structures and basic operations</p>
Database files	<p>Number and naming conventions will vary according to type of database</p>
Database dictionary	<p>Fields and definitions will vary according to data/information to be loaded</p>
IT Platform	<p>IT platform on which database will sit and will affect considerations such as: database options, size of database, and performance of database.</p>
Performance/Tuning enhancements	<p>Can include but not restricted to: improvements to response time, simultaneous access</p>
Security	<p>Security requirements will impact on the back-up methodologies employed</p>
Database support functions	<p>Can include, but not are not restricted to: database administrator, supplier support, development support – database designer, maintenance of database dictionary, database security</p>
Operating systems	<p>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare</p>
Client User	<p>May be a department within the organisation or a third party and so the relation and ease of access will vary.</p>

UNIT	ICAITS108B Complete database back-up and recovery
-------------	--

Documentation and Reporting	Includes maintaining standards of definition, standards of format, user access information. Information should be clear and written in such a way that it will be readily understood by the target audience.
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Back-up	May involve single tape unit back-up to more comprehensive and complex back-up facilities across the network.

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to implement a back-up and recovery techniques with minimum disruption to the business and if necessary, introduce effective contingency techniques	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS020C, ICAITU127B, ICAITS113B, ICAITB061B, ICAITS024C, ICAITS106B, ICAITS125B, ICAITS030B, ICAITU126B, ICAITS107B The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	Underpinning knowledge <ul style="list-style-type: none"> • Detailed knowledge of SQL • Detailed knowledge of database administration • Detailed knowledge of tuning methodologies • General knowledge of the principles of databases • Detailed knowledge of diagnostic tools • Detailed knowledge of back-up and recovery methodologies • Detailed knowledge of database security 	Underpinning skills <ul style="list-style-type: none"> • Analysis skills in relation to non-routine work processes • Project planning skills in relation to set benchmarks and identified scope • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Problem solving skills in non-routine work processes • Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in back-up and recovery strategies
Resources	To demonstrate this unit of competence the candidate will require access to documents detailing: <ul style="list-style-type: none"> • Documentation standards • Back-up and recovery policies <p>Assessment of this unit of competence could include review of the baseline database developed by the candidate.</p> <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully recover database to baseline and to create standby database.</p>	

UNIT	ICAIT5108B Complete database back-up and recovery
-------------	--

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	2	3	3

UNIT	ICAITS109B Evaluate system status
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to evaluate the current status of a running system, covering both hardware and software aspects to determine system performance and reliability
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITS107B, ICAITS113B, ICAITU127A, ICAITS112B, ICAITU019B, ICAITS108B, ICAITS032B, ICAITS124A
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine scope and evaluation parameters	<ol style="list-style-type: none"> 1. Scope of the evaluation, including personnel, hardware, software, warranty, maintenance, support etc is determined 2. Organisational reporting requirements are complied to when planning a 'change of status' test 3. Reason for the evaluation, its objectives, deliverables and key performance indicators are reviewed using appropriate capacity tools 4. Time, environment, internal and external issues are factored in when planning status evaluation 5. Affected users are alerted if evaluation is likely to impact their operation, or if they need to be involved in it 6. A plan for the evaluation is developed and the resources and methods to be used are identified
2. Carry out evaluation	<ol style="list-style-type: none"> 1. Resources are organised as outlined in the plan, and evaluation methods whether they be manual or computerised, are put in place 2. Evaluation process is run for the required time and detail 3. Status is documented and recorded as per procedural parameters and plan 4. During evaluation effects are observed and documented, and any changes to system status are made in accordance with effect being evaluated 5. Any effects that are not listed and which may require further investigation are observed
3. Report on evaluation	<ol style="list-style-type: none"> 1. A report to the nominated addressee indicating the results of the status check is prepared 2. Any anomalies observed in the status check which were outside the expected results are highlighted 3. Recommendations for changes are made to improve the system, if necessary

UNIT	ICAITS109B Evaluate system status
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Scope	<p>The scope of the assessment may be specific or a general system wide status.</p> <p>It may relate to hardware, software, networks, data, processes, etc.</p>
Evaluation parameters	<p>These will vary from site to site and be based upon the scope of the system evaluated</p>
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,
Operating systems	<p>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare</p>
Software and Applications	<p>Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.</p>
Client	<p>A client may be:</p> <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution or • a third party and so the relationship and therefore ease of access will vary.
Documentation and Reporting	<p>Includes maintaining standards of definition, standards of format, user access information. Information should be clear and written in such a way that it will be readily understood by the target audience.</p> <p>Reports meet the specific output requirements and are presented in a logical and accessible manner.</p>

UNIT	ICAITS109B Evaluate system status
-------------	--

OH and S Standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

Organisational Standards

May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment must confirm the ability to identify comprehensive performance indicators to determine system performance and reliability in relation to both hardware and software.

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITS107B, ICAITS113B, ICAITU127A, ICAITS112B, ICAITU019B, ICAITS108B, ICAITS032B, ICAITS124B The interdependence of units of competency for assessment will vary with the particular project or scenario

Underpinning skills and knowledge**Underpinning knowledge**

- Broad knowledge of help desk and maintenance practices
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement
- Broad general knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices
- One or more change management tools
- A broad knowledge base incorporating some theoretical concepts of system testing
- A broad knowledge base incorporating some theoretical concepts of change control procedures
- Detailed knowledge of the system under modification
- A broad knowledge base incorporating some theoretical concepts of capacity planning

Underpinning skills

- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Change management skills in relation to maintaining the continuity of IT operations and business functions
- Customer service skills in relation to reviewing change procedures
- Handling difficult clients skills in relation to reviewing change procedures
- Conflict resolution skills in relation to reviewing change procedures
- Risk analysis skills in relation to reviewing change procedures
- Low level training needs analysis skills
- Low level programming skills

UNIT	ICAITS109B Evaluate system status
-------------	--

Resources

To demonstrate this unit of competence the candidate will require access to a live system

Assessment of this unit of competence could include review of the report indicating the results of the status check developed by the candidate.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to carry out the evaluation and monitoring aspects of this unit.

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS110B Implement system software changes
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to implement system changes. These changes are primarily software oriented, but may be used more generically.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITS124A, ICAITS112B, ICAITS030B, ICAITU127A, ICAITS114B, ICAITS020C, ICAITS029B, ICAITU126A, ICAITS034B, ICAITH100A
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine system change required	<ol style="list-style-type: none"> 1. Existence of documentary evidence to support change is ensured and the change required is evaluated 2. All documentation required in accordance with maintenance methodologies is completed 3. Nature of the change with the client or sponsor is clarified, if necessary 4. Technical data is obtained from repositories and other resources required to complete change are requested
2. Carry out system change	<ol style="list-style-type: none"> 1. Affected users are alerted prior to beginning the implementation, and timing of change and methods for standby operation are agreed to 2. Any initialisation or configuration files are copied prior to implementation, where necessary 3. Achievability of rollback path in the event of failure is ensured 4. Changes required in software are made according to project or organisational guidelines 5. Changes are tested and verified according to implementation guide and organisational standards
3. Present changes to clients for acceptance	<ol style="list-style-type: none"> 1. Changes are demonstrated to the clients and the impact of accepting changes is explained 2. Changes are accepted and committed to by clients, further modification are made or changes are rejected 3. Documentation and repositories are updated in accordance with standards and any change management system is updated
4. Perform hand-over to systems operations area	<ol style="list-style-type: none"> 1. Documentation and client procedures are updated to reflect the changes made 2. Acceptance by systems operations is signed off in accordance with procedures

UNIT	ICAITS110B Implement system software changes
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Maintenance methods	Large organisations are likely to have formal methods for the recording and approval of modifications, others may be less formal
Software and Applications	Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.
Operating systems	Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare
Groupware/Email/Office	<p>Possible groupware applications and servers include:</p> <ul style="list-style-type: none"> Novell Groupwise, Lotus Notes, Domino, MS Exchange, Netscape SuiteSpot, Teamware Office, Email applications, Group calendars, Collaborative writing systems, Shared whiteboards, Decision support systems <p>Application/web servers; BEA Weblogic Servers, IBM VisualAge and WebSphere, Microsoft Host Integration Server, NetDynamics, Netscape Application Server</p> <ul style="list-style-type: none"> Email Servers; File & Print Servers; FTP Servers; Proxy Servers

UNIT	ICAITS110B Implement system software changes
-------------	---

Software	<p>Most likely to be packaged software but can be supplied from many varying vendors and can include full suites or individual components</p> <ul style="list-style-type: none"> • Intranet Connections • ColdFusion • Xpedio • Samba • ERoom • Collabra Share
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Languages	Java, Java Script, C++, Visual Basic, XML
Documentation and Reporting	<p>Includes maintaining standards of definition, standards of format, user access information. Information should be clear and written in such a way that it will be readily understood by the target audience.</p> <p>Reports meet the specific output requirements and are presented in a logical and accessible manner.</p>
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Standards and procedures	May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to implement changes to the system with minimum disruption to the system and client users. All changes are fully documented
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS124B, ICAITS112B, ICAITS030B, ICAITU127A, ICAITS114B, ICAITS020C, ICAITS029B, ICAITU126A, ICAITS034B, ICAITI100A The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITS110B Implement system software changes	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Broad knowledge of help desk and maintenance practices • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement • Broad general knowledge of the client business domain • Detailed knowledge of the system's current functionality • Broad knowledge base of quality assurance practices • One or more change management tools • A broad knowledge base incorporating some theoretical concepts of system testing • A broad knowledge base incorporating some theoretical concepts of change control procedures • Detailed knowledge of the system under modification • A broad knowledge base incorporating some theoretical concepts of capacity planning • Context of changes being implemented • Business scheduling requirements 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts • Negotiation skills in relation to other team members and applied to a defined range of predictable problems • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Change management skills in relation to maintaining the continuity of IT operations and business functions • Customer service skills in relation to reviewing change procedures • Handling difficult clients skills in relation to reviewing change procedures • Conflict resolution skills in relation to reviewing change procedures • Risk analysis skills in relation to reviewing change procedures • Low level training needs analysis skills • Low level programming skills
Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • Technical specifications and documentation • Organisational requirements • A live system <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>	

UNIT

ICAITS110B Implement system software changes

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to address the implementation and monitoring of software changes.

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

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 co-ordination.

The 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 co-ordination may be involved.

An individual demonstrating these competencies 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; and
- take limited responsibility for the achievement of group outcomes.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	2	2	3

UNIT	ICAITS111B Manage and review delivery of maintenance services
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to manage and review the delivery of maintenance services.
--------------------	--

RELATED COMPETENCY STANDARD	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS104B, ICAITS105B, ICAITS118B, ICAITAD041A, ICAITT064A, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITT066A, ICAITS116B, ICAITS035C, ICAITT063A
------------------------------------	---

Elements	Performance Criteria
1. Identify appropriate service levels	<ol style="list-style-type: none"> 1. Fault reporting and restoration standards and procedures are identified against service level agreements to ensure they meet requirements 2. System availability standards and procedures are reviewed against service level agreement to ensure they meet requirements 3. Response times are monitored against service level agreement to ensure they meet requirements 4. Hours of coverage are determined from business work demands and service level agreements 5. Critical areas of support are identified and monitored to determine appropriate service level agreements 6. Penalty areas, where appropriate are identified and monitored 7. Nature of maintenance support is checked against service level agreements to ensure they meet requirements 8. Scheduling of maintenance activities against business requirements is monitored and reviewed 9. Reporting and feedback requirements are assessed for suitability and timeliness

UNIT	ICAITS111B Manage and review delivery of maintenance services
2. Confirm that infrastructure can deliver required service levels	<ol style="list-style-type: none"> 1. Personnel and skill requirements are reviewed to ensure that they meet internal service and control requirements 2. Internal support and maintenance processes are detailed and documented against service requirements 3. Spares and tools requirements are determined in order to provide the appropriate level of service and response 4. All purchasing and storage is checked to comply with company preferred purchasing/storage arrangements 5. Internal reporting and measurement mechanisms are established and monitored to ensure that escalation procedures can be actioned 6. Gaps in existing service and maintenance infrastructure are prioritised and corrected according to business requirements and business critical functions
3. Monitor performance against agreement	<ol style="list-style-type: none"> 1. Measurement reports are reviewed and analysed on a regular basis 2. Deficiencies and impact on service level agreements of service are identified 3. Means to correct in a cost effective manner are identified, or changes to the Service Level Agreement are made 4. Recommendations are implemented in a timely manner, and all stakeholders are informed of the changes and are aware of the impact of the changes
4. Regularly review agreement and performance with client	<ol style="list-style-type: none"> 1. Regular reports to client users and stakeholders are prepared according to agreement 2. Reports are reviewed with client using plain English so client users will comprehend the information and feedback 3. Findings and action items are recorded, and next steps and changes to be made are agreed to

RANGE OF VARIABLES

VARIABLE	SCOPE
----------	-------

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Service Level Agreements

Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products.

SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units

UNIT	ICAITS111B Manage and review delivery of maintenance services
Client	<p>May be:</p> <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party <p>and so the relationship and ease of access will vary.</p>
Maintenance options	<p>Maintenance options can include:</p> <ul style="list-style-type: none"> • on-site response, • remote diagnostics, • return to depot, • on-line realtime support, • web based support, • business hours only support, • 24x7 hours support, • telephone support, • second level support.
Software and Applications	Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.
Reporting procedures	<p>Help desk and maintenance structures will vary.</p> <p>Some may be a call centre or a general contact point which then calls a supplier or other technician.</p> <p>Others may be staffed by technicians capable of solving the problem. Thus documentation and other procedures will vary. Systems to monitor change request may be manual or computerised.</p>
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Standards and procedures	May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
Culture	Each organisation has a defined culture that can vary from encouraging open communication between all staff to a strict following of protocol.
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Operating systems	Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare

UNIT	ICAITS111B Manage and review delivery of maintenance services
-------------	---

Hardware

Can include IT equipment of all types:

- Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems,
- Bridges, 3Com, Compaq, CISCO, IBM
- modems, analog, cable, ISDN, DSL
- servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys
- network cards, Adaptec, ARTIC, Compex, SMC
- switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies
- hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron,
- routers & gateways, 3Com, CISCO, D-Link, Intel,
- File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment must confirm sufficient knowledge of compliance with service level agreement

Assessment must confirm the ability to critically analyse and prioritise requests according to business requirements

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITS104B, ICAITS105B, ICAITS118B, ICAITAD041B, ICAITT064A, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITT066A, ICAITS116B, ICAITS035C, ICAITT063A The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITS111B Manage and review delivery of maintenance services	
<p>Underpinning skills and knowledge</p>	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Broad knowledge of help desk and maintenance practices • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement • Broad general knowledge of the client business domain • Detailed knowledge of the system's current functionality • Broad knowledge base of quality assurance practices • One or more change management tools • A broad knowledge base incorporating some theoretical concepts of system testing • A broad knowledge base incorporating some theoretical concepts of change control procedures • Detailed knowledge of the system under modification • A broad knowledge base incorporating some theoretical concepts of capacity planning • Context of changes being implemented • Business scheduling requirements 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts • Negotiation skills in relation to other team members and applied to a defined range of predictable problems • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Change management skills in relation to maintaining the continuity of IT operations and business functions • Customer service skills in relation to reviewing change procedures • Handling difficult clients skills in relation to reviewing change procedures • Conflict resolution skills in relation to reviewing change procedures • Risk analysis skills in relation to reviewing change procedures • Low level training needs analysis skills • Low level programming skills
<p>Resources</p>	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • clients wishing to define and review a service level agreement, • established IT service infrastructure, • reports measuring performance against agreement. <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>	

UNIT

ICAITS111B Manage and review delivery of maintenance services

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to address the ongoing monitoring aspects of this unit.

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one's own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	3	2	3	2

UNIT	ICAITS112B Optimise system performance
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to identify areas of poor system performance and take steps to improve performance
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITI097A, ICAITS114B, ICAITS020C, ICAITS124A, ICAITS107B, ICAITS030B, ICAITU127A, ICAITS113B
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Identify areas of poor performance	<ol style="list-style-type: none"> 1. Fault logs are examined to determine if performance is a problem reported by client users 2. System utilisation, file and disc structure, performance reports and files are analysed to identify any peak periods or possible performance problems 3. Response times are reviewed by using benchmark and other performance measurement tools. 4. Network capacity and throughput are investigated using software or hardware tools to monitor performance over a period 5. Any other technical areas that can be explored to identify bottlenecks are identified
2. Investigate methods to improve performance	<ol style="list-style-type: none"> 1. System capacity, limitations and findings from performance review activities are reviewed 2. Options are discussed with system programmer, suppliers, consultants and other technical sources, as applicable 3. System tools are used to gather additional information that may be required to assist in final determination of problem 4. Various courses of action designed to reduce performance problems and expected measure of improvement are identified 5. Method for resolution that is cost effective and provides a timely solution to the problem is identified
3. Tune system and monitor performance	<ol style="list-style-type: none"> 1. Any necessary components are obtained, or steps necessary to improve system performance are realised 2. Components are installed and/or system parameters or configuration are adjusted 3. Network balance or other hardware configurations are adjusted as appropriate 4. System is monitored and retuned where applicable, to demonstrate improved performance 5. System documentation and, if necessary, equipment register are updated to record any changed components 6. Recommendations are made for prevention or early detection of same or similar performance problems

UNIT	ICAITS112B Optimise system performance
------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

System performance	<p>Can be affected by:</p> <ul style="list-style-type: none"> • imbalances in disk utilisation and available space, • memory availability and utilisation, • processor utilisation, • disk speed, • allocation of files across disk space, • number of concurrent users, • work load, • physical limitations of system, • poor design in a program/s, • queue depth, • seek time, • I/O channel availability
Security	Security requirements will impact on the back-up methodologies employed
Operating systems	Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare
Databases	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • Oracle, • Sybase, • Microsoft SQL Server, • Ingres, • DB2, • Informix, mSQL, MySQL, SQL Server etc

UNIT	ICAITS112B Optimise system performance
Methods to improve performance	<p>Can include:</p> <ul style="list-style-type: none"> • load balancing, • tuning the disk sub-system, • reducing total load by tuning the operating system, • tuning applications to reduce the load they impose. <p>Can include using various systems tools to adjust system parameters through to an upgrade (hardware or software)</p>
Diagnostic tools	Varies across technology platforms, but can include software, electronics equipment (eg. volt meter, oscilloscope, data analyser).
Service Level Agreements	<p>Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products.</p> <p>SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units</p>
Software and Applications	Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.
Reporting procedures	Help desk and maintenance structures will vary. Some may be just a call centre or a general contact point, which then calls a supplier or other technician. Others may be staffed by technicians capable of solving the problem. Thus documentation and other procedures will vary. Systems to monitor change request may be manual or computerised.
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Maintenance options	<p>Maintenance options can include:</p> <ul style="list-style-type: none"> • on-site response, • remote diagnostics, • return to depot, • business hours only support, • 24x7 hours support, • on-line realtime, • web based, • telephone support, • second level support.

UNIT	ICAITS112B Optimise system performance
-------------	---

Hardware

Can include IT equipment of all types:

- Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems,
- Bridges, 3Com, Compaq, CISCO, IBM
- modems, analog, cable, ISDN, DSL
- servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys
- network cards, Adaptec, ARTIC, Compex, SMC
- switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies
- hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron,
- routers & gateways, 3Com, CISCO, D-Link, Intel,
- File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,

Tuning and performance

Can include, but not restricted to: improvements to response time, simultaneous access

Database optimisation

Can include, but not limited to: relationship databases, object-relational databases, flat file databases, proprietary databases, off the shelf database packages

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm sufficient knowledge of system operations and demand times.

Assessment must confirm the ability to keep the system balanced and performing well.

Assessment must confirm the ability to analyse the systems performance

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITI097A, ICAITS114B, ICAITS020C, ICAITS124C, ICAITS107B, ICAITS030B, ICAITU127A, ICAITS113B. The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITS112B Optimise system performance	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Broad knowledge of help desk and maintenance practices • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement • Broad general knowledge of the client business domain • Detailed knowledge of the system's current functionality • Broad knowledge base of quality assurance practices • One or more change management tools • A broad knowledge base incorporating some theoretical concepts of system performance • A broad knowledge base incorporating some theoretical concepts of change control procedures • Detailed knowledge of the system under modification • A broad knowledge base incorporating some theoretical concepts of capacity planning • Context of changes being implemented • Business scheduling requirements • A broad knowledge base incorporating some theoretical concepts of diagnostic tools 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts • Negotiation skills in relation to other team members and applied to a defined range of predictable problems • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Change management skills in relation to maintaining the continuity of IT operations and business functions • Customer service skills in relation to reviewing change procedures • Handling difficult clients skills in relation to reviewing change procedures • Conflict resolution skills in relation to reviewing change procedures • Risk analysis skills in relation to reviewing change procedures • Low level training needs analysis skills • Low level programming skills
Resources	<p>To demonstrate this unit of competence the candidate will require access to documents detailing:</p> <ul style="list-style-type: none"> • a live system, poorly performing system, dedicated use of system at times • technical manuals • fault logs <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to analyse performance issues and monitor the system.</p>	

UNIT	ICAITS112B Optimise system performance
------	---

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	2	3	3

UNIT	ICAIT113B Identify and resolve common database performance problems
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to identify and solve common database performance problems to improve database performance
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITS108B, ICAITU127A, ICAITS113B, ICAITB061A, ICAITS024C, ICAITS106B, ICAITS125A, ICAITS030B, ICAITU126A, ICAITS107B
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Diagnose problems	<ol style="list-style-type: none"> 1. Appropriate diagnostic tool is determined based on organisational database requirements and vendor recommendations 2. Diagnostic tool is run to identify latch contentions and events causing waits 3. Inappropriate use of database and temp table spaces are determined 4. Appropriate fixes based on diagnostic results are undertaken
2. Configure database	<ol style="list-style-type: none"> 1. Files are distributed to minimise I/O contention 2. Appropriateness of back-up procedures developed is ensured 3. Rollback segments are reconfigured 4. Database is configured and performance is tested
3. Tune database	<ol style="list-style-type: none"> 1. Module performance is tracked according to specifications 2. Efficiency of SQL is monitored and tuned as required 3. Performance of shared pool, blocks and buffers is monitored and measured 4. Any contentions identified are detected and resolved 5. Database is reconfigured according to specifications

UNIT

ICAITS113B Identify and resolve common database performance problems

RANGE OF VARIABLES

VARIABLE

SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Tools	<p>Variables may include but are not limited to: vendor specific database administration tools. Tools include any item or tool used to administer databases.</p> <p>The most appropriate administration tool employed in the most efficient manner.</p>
Databases	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • Oracle, • Sybase, • Microsoft SQL Server, • Ingres, • DB2, • Informix, mSQL, MySQL, SQL Server etc
SQL	<p>May include proprietary extensions. AS/NZS 3968.0:1994 Information technology - Database languages - SQL - Definition of data structures and basic operations</p>
Database files	<p>Number and naming conventions will vary according to type of database</p>
Database dictionary	<p>Fields and definitions will vary according to data/information to be loaded</p>
IT Platform	<p>IT platform on which database will sit and will affect considerations such as: database options, size of database, and performance of database.</p>
Performance/Tuning enhancements	<p>Can include but not restricted to: improvements to response time, simultaneous access</p>
Security	<p>Security requirements will impact on the back-up methodologies employed</p>
Database support functions	<p>Can include, but not are not restricted to: database administrator, supplier support, development support – database designer, maintenance of database dictionary, database security</p>
Operating systems	<p>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare</p>
Client User	<p>May be a department within the organisation or a third party and so the relation and ease of access will vary.</p>
Documentation and Reporting	<p>Includes maintaining standards of definition, standards of format, user access information. Information should be clear and written in such a way that it will be readily understood by the target audience.</p>
Organisational Standards	<p>May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used</p>

UNIT	ICAITS113B Identify and resolve common database performance problems
-------------	---

OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Back-up	May involve single tape unit back-up to more comprehensive and complex back-up facilities across the network.
Database support functions	<p>Can include but not are not restricted to:</p> <ul style="list-style-type: none"> • database administrator, • supplier support, • development support – database designer, • maintenance of database dictionary, • database security

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to correctly identify and solve common database performance problems to improve database performance	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS108B, ICAITU127A, ICAITS113B, ICAITB061B, ICAITS024C, ICAITS106B, ICAITS125A, ICAITS030B, ICAITU126A, ICAITS107B The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Broad knowledge base incorporating theoretical concepts of SQL • Detailed knowledge base incorporating theoretical concepts of database administration • Detailed knowledge base incorporating theoretical concepts of tuning methodologies • General knowledge base incorporating theoretical concepts of the principles of databases • Detailed knowledge base incorporating theoretical concepts of diagnostic tools 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Analysis skills in relation to normal routine and non-routine work processes • Project planning skills in relation to set benchmarks and identified scope • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Problem solving skills in non-routine work processes
Resources	<p>To demonstrate this unit of competence the candidate will require access to:</p> <ul style="list-style-type: none"> • Diagnostic tools <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time.</p>	

UNIT

ICAITS113B Identify and resolve common database performance problems**Context**

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one's own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	2	2	2	3	3

UNIT	ICAITS114B Implement maintenance procedures
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to set up maintenance procedures to keep equipment operating.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITI087A, ICAITI088B, ICAITS104B, ICAITS105B, ICAITS118B, ICAITAD041A, ICAITT064A, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITT066A, ICAITS116B, ICAITS035C, ICAITT063A
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Establish best practices for equipment and software maintenance	<ol style="list-style-type: none"> 1. Procedures are implemented to identify equipment and software that is to be maintained 2. Peer organisations or research information detailing best practices in equipment and software maintenance are identified 3. Recommended maintenance and operations guidelines for equipment and software maintenance are developed 4. User requirements in the area of equipment maintenance are obtained 5. Procedures for maintenance based upon best practices are documented
2. Identify resources to provide equipment and software maintenance	<ol style="list-style-type: none"> 1. Level of support which can be provided by in-house resources is identified 2. Support to be supplied by third parties is identified 3. Service Level Agreement with internal users and with third party suppliers is developed or updated
3. Revise practices, where appropriate	<ol style="list-style-type: none"> 1. Maintenance operation is monitored and reviewed 2. Problem areas or times when SLAs are not met are identified, and changes to maintenance procedure are considered 3. Any changes are assessed in consultation with users, support staff and third parties 4. Improvements are modified and implemented

UNIT

ICAITS114B Implement maintenance procedures

RANGE OF VARIABLES

VARIABLE

SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Service Level Agreements

Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products.

SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units

Client

May be:

- a department within an organisation,
- a business requiring an e-commerce solution
- or a third party

and so the relationship and ease of access will vary.

Maintenance options

Maintenance options can include:

- on-site response,
- remote diagnostics,
- return to depot,
- on-line realtime support,
- web based support,
- business hours only support,
- 24x7 hours support,
- telephone support,
- second level support.

Software and Applications

Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.

Reporting procedures

Help desk and maintenance structures will vary.

Some may be a call centre or a general contact point which then calls a supplier or other technician.

Others may be staffed by technicians capable of solving the problem. Thus documentation and other procedures will vary. Systems to monitor change request may be manual or computerised.

Documentation and Reporting

Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates

UNIT	
ICAITS114B Implement maintenance procedures	
Standards and procedures	May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
Culture	Each organisation has a defined culture that can vary from encouraging open communication between all staff to a strict following of protocol.
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Best practices	Can include, but are not restricted to: schedule of maintenance, user recommended activities, technical specialist activities, identification and supply of parts, repair of parts,
Operating systems	Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems
EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to set up efficient and responsive maintenance procedures to keep equipment and software operating.
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITI087A, ICAITI088B, ICAITS104B, ICAITS105B, ICAITS118B, ICAITAD041B, ICAITT064A, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITT066A, ICAITS116B, ICAITS035C, ICAITT063A. The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT

ICAITS114B Implement maintenance procedures

Underpinning skills and knowledge

Underpinning knowledge

- Broad knowledge of help desk and maintenance practices
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement
- Broad general knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices
- One or more change management tools
- A broad knowledge base incorporating some theoretical concepts of system performance
- A broad knowledge maintenance procedures
- Business scheduling requirements
- A broad knowledge base incorporating some theoretical concepts of diagnostic tools

Underpinning skills

- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature.
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Change management skills in relation to maintaining the continuity of IT operations and business functions
- Customer service skills in relation to reviewing maintenance procedures
- Handling difficult clients skills in relation to reviewing maintenance procedures
- Conflict resolution skills in relation to reviewing maintenance procedures
- Risk analysis skills in relation to reviewing maintenance procedures
- Low level training needs analysis skills
- Low level programming skills

Resources

To demonstrate this unit of competence the candidate will require access to:

- Technical environment with a variety of operational equipment,
- technical manuals and tools

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time.

UNIT	ICAITS114B Implement maintenance procedures
-------------	---

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	2	2	3

UNIT	ICAITS115B Maintain equipment and software in working order
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to follow maintenance procedures and to keep equipment and software operating.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITU019B, ICAITS025B, ICAITS021C
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine equipment maintenance required	<ol style="list-style-type: none"> 1. Required equipment maintenance procedures are reviewed and understood. 2. Procedures that can be handled internally are determined 3. Required procedures are undertaken, as per documentation requirements
2. Diagnose and repair fault	<ol style="list-style-type: none"> 1. Situation is assessed with a logical and efficient method to identify main cause of problem 2. Possible failures or performance degradation are tested with diagnostic tools or other examination techniques 3. Steps for cost effective resolution are identified and a timely solution to the problem is provided 4. Long term analysis of recurring problems is undertaken 5. Any necessary components are obtained and repair to the equipment or software is completed in a timely manner so as to minimise disruption to the user
3. Document maintenance carried out and make recommendations for future maintenance	<ol style="list-style-type: none"> 1. Fault procedure documentation is completed in accordance with standards 2. Equipment register is updated if necessary to record changed components 3. Recommendations for prevention or early detection of same or similar equipment and software problems are made

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Service Level Agreements

Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products.

SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units

UNIT	ICAITS115B Maintain equipment and software in working order
Client	<p>May be:</p> <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party <p>and so the relationship and ease of access will vary.</p>
Maintenance options	<p>Maintenance options can include:</p> <ul style="list-style-type: none"> • on-site response, • remote diagnostics, • return to depot, • on-line realtime support, • web based support, • business hours only support, • 24x7 hours support, • telephone support, • second level support.
Software and Applications	<p>Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.</p>
Reporting procedures	<p>Help desk and maintenance structures will vary.</p> <p>Some may be a call centre or a general contact point which then calls a supplier or other technician.</p> <p>Others may be staffed by technicians capable of solving the problem. Thus documentation and other procedures will vary. Systems to monitor change request may be manual or computerised.</p>
Documentation and Reporting	<p>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates</p>
Standards and procedures	<p>May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost</p>
Culture	<p>Each organisation has a defined culture that can vary from encouraging open communication between all staff to a strict following of protocol.</p>
Operating systems	<p>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare</p>

UNIT	ICAITS115B Maintain equipment and software in working order
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems
Software	<p>Most likely to be packaged software but can be supplied from many varying vendors and can include full suites or individual components</p> <ul style="list-style-type: none"> • Intranet Connections • ColdFusion • Xpedio • Samba • ERoom • Collabra Share
Groupware/Email/Office	<p>Possible groupware applications and servers include:</p> <p>Novell Groupwise,</p> <p>Lotus Notes, Domino,</p> <p>MS Exchange,</p> <p>Netscape SuiteSpot,</p> <p>Teamware Office,</p> <p>Email applications,</p> <p>Group calendars,</p> <p>Collaborative writing systems,</p> <p>Shared whiteboards,</p> <p>Decision support systems</p> <p>Application/web servers; BEA Weblogic Servers, IBM VisualAge and WebSphere, Microsoft Host Integration Server, NetDynamics, Netscape Application Server</p> <p>Email Servers;</p> <p>File & Print Servers;</p> <p>FTP Servers;</p> <p>Proxy Servers</p>

OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Languages	Java, Java Script, C++, Visual Basic, XML

UNIT

ICAITS115B Maintain equipment and software in working order

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to fix a range of technical problems and adhere to maintenance procedures

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITU019B, ICAITS025B, ICAITS021C. The interdependence of units of competency for assessment will vary with the particular project or scenario

Underpinning skills and knowledge**Underpinning knowledge**

- Broad knowledge of help desk and maintenance practices
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement
- Broad general knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices
- Operation and purpose of specified equipment
- Operation of technical diagnostic tools
- Detailed knowledge of escalation procedures
- Broad knowledge base of problem management tools

Underpinning skills

- Risk analysis skills in relation to reviewing maintenance procedures
- Low level training needs analysis skills
- Low level programming skills
- Reading and interpretation of technical manuals
- Technical diagnosis skills
- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Escalation skills for the maintenance technical problems
- Documentation skills

Resources

To demonstrate this unit of competence the candidate will require access to

- Technical environment with a variety of operational equipment,
- technical manuals and tools

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to repair a number of different faults.

UNIT	ICAIT5115B Maintain equipment and software in working order
-------------	--

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate some relevant theoretical knowledge; apply a range of well developed skills;
- apply known solutions to a variety of predictable problems;
- perform processes that require a range of well developed skills where some discretion and judgement is required;
- interpret available information, using discretion and judgement;
- take responsibility for one’s own outputs in work and learning; and
- take limited responsibility for the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	2	1	2	2	2

UNIT	ICAITS116B Undertake capacity planning
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to assess current and future capacity requirements of system
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS104B, ICAITS105B, ICAITS111B, ICAITS118B, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITT066A
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Analyse existing system capacity	<ol style="list-style-type: none"> 1. Existing system configuration (Hardware/Software) information is reviewed to determine capacity issues. 2. Relationship between current workload/s, capacity and performance is identified and recognised 3. Current Service Level Agreement is reviewed to determine capacity standards to be adhered to 4. Fault logs caused by capacity problems are examined and perceived and actual capacity issues are reviewed with users
2. Determine future capacity requirements	<ol style="list-style-type: none"> 1. Discussion with users about future requirements and forecasted workload is completed 2. Actual workloads are compared with predictions for the period to determine capacity problem areas 3. Resource requirements and actual equipment and resources required are estimated 4. A financial analysis of the capacity requirements is undertaken, to determine an effective strategy for enhancement 5. Recommendations are documented and presented to management
3. Develop plan for capacity enhancements	<ol style="list-style-type: none"> 1. Impact of changes on operations is recognised and implementation plan minimises the impact of change 2. Availability of finances is taken into account when planing enhanced capacity 3. User requirements and staff availability are taken into consideration when planning the capacity enhancement 4. Prepared plan is submitted for approval by management and user departments

UNIT		ICAITS116B Undertake capacity planning
4. Install capacity enhancements	<ol style="list-style-type: none"> 1. Capacity enhancements are installed in accordance with the plan 2. Capacity increment due to installed equipment is measurable and provides the additional resources expected 3. All documentation, asset registers, hardware reports, etc. are updated to reflect the additional capacity enhancements 	
5. Monitor on-going capacity requirements	<ol style="list-style-type: none"> 1. Development design phases of applications are monitored to assess impact on capacity and performance. 2. A performance database is implemented, benchmarks are set and performance is regularly reviewed 3. Impact of new technology on capacity and performance is assessed 	

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Existing Capacity	Documentation and information available to determine existing capacity will depend upon whether monitoring is undertaken. Slow performance may not be considered a fault in some organisations depending on business requirements.
Workload forecasts	<p>Can include but not restricted to:</p> <ul style="list-style-type: none"> • trends in existing workload, • corporate business plans, • user interviews, • user questionnaires, • application development personnel, • outside influences eg. legal requirements, • competitive pressures, • economic trends
Plan and Financial analysis	Large expenditures may not be able to be incurred in one go. Enhancements may have to be staged over a period of time based upon the availability of cash flow.
Service Level Agreements	<p>Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products.</p> <p>SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units</p>

UNIT	ICAITS116B Undertake capacity planning
Client	<p>May be:</p> <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party <p>and so the relationship and ease of access will vary.</p>
Maintenance options	<p>Maintenance options can include:</p> <ul style="list-style-type: none"> • on-site response, • remote diagnostics, • return to depot, • on-line realtime support, • web based support, • business hours only support, • 24x7 hours support, • telephone support, • second level support.
Software and Applications	<p>Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.</p>
Reporting procedures	<p>Help desk and maintenance structures will vary.</p> <p>Some may be a call centre or a general contact point which then calls a supplier or other technician.</p> <p>Others may be staffed by technicians capable of solving the problem. Thus documentation and other procedures will vary. Systems to monitor change request may be manual or computerised.</p>
Documentation and Reporting	<p>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates</p>
Standards and procedures	<p>May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost</p>
Culture	<p>Each organisation has a defined culture that can vary from encouraging open communication between all staff to a strict following of protocol.</p>
Operating systems	<p>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare</p>

UNIT	ICAITS116B Undertake capacity planning
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems
Software	<p>Most likely to be packaged software but can be supplied from many varying vendors and can include full suites or individual components</p> <ul style="list-style-type: none"> • Intranet Connections • ColdFusion • Xpedio • Samba • ERoom • Collabra Share
Groupware/Email/Office	<p>Possible groupware applications and servers include:</p> <ul style="list-style-type: none"> • Novell Groupwise, • Lotus Notes, Domino, • MS Exchange, • Netscape SuiteSpot, • Teamware Office, • Email applications, • Group calendars, • Collaborative writing systems, • Shared whiteboards, • Decision support systems • Application/web servers; BEA Weblogic Servers, IBM VisualAge and WebSphere, Microsoft Host Integration Server, NetDynamics, Netscape Application Server • Email Servers; • File & Print Servers; • FTP Servers; • Proxy Servers
OH and S Standards	<p>As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency</p>

UNIT

ICAITS116B Undertake capacity planning

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to translate business growth into IT capacity requirements with forecasts being realistic and achievable

Assessment must confirm the ability to accurately assess current and future capacity requirements of system

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITS104B, ICAITS105B, ICAITS111B, ICAITS118B, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITT066A. The interdependence of units of competency for assessment will vary with the particular project or scenario

Underpinning skills and knowledge**Underpinning knowledge**

- Broad knowledge base incorporating theoretical concepts of modelling
- Broad knowledge base incorporating theoretical concepts of component performance management
- Broad knowledge base incorporating theoretical concepts of capacity planning tools
- Broad knowledge base of the role of stakeholders and the degree of stakeholder involvement
- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices
- Broad general knowledge of the client business domain
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas

Underpinning skills

- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Project planning skills in relation to scope, time, cost, quality, communications, risk management and forecasting skills
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas

Resources

To demonstrate this unit of competence the candidate will require access to:

- A live system
- Service Level Agreements
- Fault logs
- Users

Assessment of this unit of competence could include review of documents developed by the candidate, which incorporate recommendations, the enhancements implementation plan and documentation of updated system.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

UNIT	ICAITS116B Undertake capacity planning
-------------	---

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to address the financial analysis and monitoring aspects of this unit.

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

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 co-ordination.

The 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 co-ordination may be involved.

An individual demonstrating these competencies 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; and
- take limited responsibility for the achievement of group outcomes.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	2	2	3	3

UNIT	ICAITS117B Maintain custom software
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit describes the competency required to maintain software so that it continues to meet client user requirements.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITU018B, ICAITU028B, ICAITU126A, ICAITD128A, ICAITS020C, ICAITS025B, ICAITU019B, ICAITS031B
-------------------------------------	--

ELEMENTS	PERFORMANCE CRITERIA
1. Determine the software fault to be corrected	<ol style="list-style-type: none"> 1. Fault details are collected and reviewed from sources such as fault reports, help desk reports, etc 2. Technical data is obtained from software traces, dumps, error messages and other information to assist in identifying problem 3. The nature of the problem is clarified with operational/user personnel where necessary
2. Identify and isolate fault	<ol style="list-style-type: none"> 1. Programmer's documentation for specific module(s) is reviewed in order to pinpoint problem areas 2. Source code is reviewed for logic errors that could be causing the problem 3. Manuals, help files, read me files, etc are read to determine any known problem fix 4. Additional testing is undertaken to duplicate and identify fault 5. Difficult faults that cannot be identified are escalated in accordance with procedures
3. Design the fix for the fault	<ol style="list-style-type: none"> 1. The requirements to fix the fault are fully understood and expected to produce the desired result 2. Alternative options have been considered and the most effective solution is chosen 3. The impact of the fix on other parts of the system has been considered and the fix is not expected to cause problems in other areas 4. Changes are documented in accordance with change management standards

UNIT		ICAITS117B Maintain custom software
4. Carry out the fix to the software.	<ol style="list-style-type: none"> 1. Appropriate software development tools, correct source code, libraries, etc., are identified and access obtained 2. Code to correct the fault is written in accordance with programming standards 3. Code for changed programs and associated modules is compiled/regenerated 4. Any programming/syntax errors are corrected and resubmitted until error free code is produced 5. Changes are documented in accordance with programming standards 	
5. Test the fix and associated system areas.	<ol style="list-style-type: none"> 1. Logic is checked to ensure that it works with test data, corrects original fault and does not cause any problems elsewhere 2. Users are requested to perform acceptance testing 3. Users accept changes and sign off the changes made 	
6. Hand over to systems operations area	<ol style="list-style-type: none"> 1. Documentation and user procedures are updated to reflect the changes made 2. Acceptance by systems operations is signed off in accordance with procedures 	

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Software Faults	Faults could range from a serious problem that stops the system functioning to a minor request for a change.
Software dumps	Information available will depend upon the operating systems used and the applications available.
Tests	Level of testing will depend upon the size and impact of the problem.
Operations	Organisations will differ on how they progress faults and the staff involved. It may be that all faults are fixed in the maintenance group and there is no formal hand over.
Languages	Depends upon the system being worked on Java, Java Script, C, C++, Visual Basic, XML, Pascal, Perl,
Service Level Agreements	Service Level Agreements (SLA) exist for many different infrastructure services including communications carriers, ISPs, ASPs and SLAs for vendor products. SLAs should consider business processes and requirements, clearly specify and quantify service levels, identify evaluation or audit of service levels. Can include: workload and performance considerations, expectations regarding servicing, penalties, charge back to business units
Client	May be: <ul style="list-style-type: none"> • a department within an organisation, • a business requiring an e-commerce solution • or a third party and so the relationship and ease of access will vary.

UNIT	ICAITS117B Maintain custom software
Maintenance options	<p>Maintenance options can include:</p> <ul style="list-style-type: none"> • on-site response, • remote diagnostics, • return to depot, • on-line realtime support, • web based support, • business hours only support, • 24x7 hours support, • telephone support, • second level support.
Software and Applications	<p>Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.</p>
Reporting procedures	<p>Help desk and maintenance structures will vary.</p> <p>Some may be a call centre or a general contact point which then calls a supplier or other technician.</p> <p>Others may be staffed by technicians capable of solving the problem. Thus documentation and other procedures will vary. Systems to monitor change request may be manual or computerised.</p>
Documentation and Reporting	<p>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates</p>
Standards and procedures	<p>May include formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost</p>
Culture	<p>Each organisation has a defined culture that can vary from encouraging open communication between all staff to a strict following of protocol.</p>
Operating systems	<p>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare</p>
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems
OH and S Standards	<p>As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency</p>

UNIT	ICAITS117B Maintain custom software
-------------	--

Software	<p>Most likely to be packaged software but can be supplied from many varying vendors and can include full suites to individual components</p> <ul style="list-style-type: none"> • Intranet Connections • ColdFusion • Xpedio • Samba • ERoom • Collabra Share
Groupware/Email/Office	<p>Possible groupware applications and servers include:</p> <ul style="list-style-type: none"> • Novell Groupwise, • Lotus Notes, Domino, • MS Exchange, • Netscape SuiteSpot, • Teamware Office, • Email applications, • Group calendars, • Collaborative writing systems, • Shared whiteboards, • Decision support systems • Application/web servers; BEA Weblogic Servers, IBM VisualAge and WebSphere, Microsoft Host Integration Server, NetDynamics, Netscape Application Server • Email Servers; • File & Print Servers; • FTP Servers; • Proxy Servers

EVIDENCE GUIDE

Critical aspects of evidence	<p>Assessment must confirm the ability to apply a fix that works and a possible range of different solutions to produce the same results. Assessment must confirm the knowledge of the impact of changes on the application or systems</p>
Interdependent assessment of units	<p>This unit may be assessed with any of the following: ICAITU018B, ICAITU028B, ICAITU126A, ICAITD128A, ICAITS020C, ICAITS025B, ICAITU019B, ICAITS031B. The interdependence of units of competency for assessment will vary with the particular project or scenario</p>

UNIT

ICAITS117B Maintain custom software

Underpinning skills and knowledge**Underpinning knowledge**

- Broad knowledge base incorporating theoretical concepts of testing of software systems
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge of help desk and maintenance practices
- Broad general knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Broad knowledge base of quality assurance practices
- One or more change management tools
- A broad knowledge base incorporating some theoretical concepts of system performance
- A broad knowledge of maintenance procedures
- Business scheduling requirements
- A broad knowledge base incorporating some theoretical concepts of diagnostic tools

Underpinning skills

- Change management skills in relation to maintenance procedures
- Customer service skills in relation to maintenance procedures
- Handling difficult clients skills in relation to maintenance procedures
- Conflict resolution skills in relation to maintenance procedures
- Programming skills in relation to customising and adapting software packages
- Standards and procedures in programming
- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Change management skills in relation to maintaining the continuity of IT operations and business functions
- Reading fault and help desk reports

Resources

To demonstrate this unit of competence the candidate will require access to:

- Fault logs, help desk reports
- Software documentation

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

UNIT	ICAIT5117B Maintain custom software
-------------	--

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to develop and test fixes

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

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 co-ordination.

The 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 co-ordination may be involved.

An individual demonstrating these competencies 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; and
- take limited responsibility for the achievement of group outcomes.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	3	3	3

UNIT	ICAITS118B Manage system security
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to implement and manage security functions on a system.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS104B, ICAITS105B, ICAITS111B, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITS116B, ICAITS035C, ICAITAD041A, ICAITT063A
---	---

ELEMENTS	PERFORMANCE CRITERIA
1. Identify threats to system	<ol style="list-style-type: none"> 1. Risk analysis is carried out and threats to system are evaluated, such as hackers, eavesdropping, viruses, etc. internal versus external 2. Cost effective measures are identified to recover from or prevent threats 3. Security policies and disaster recovery plan are developed 4. Plan is presented to management for approval and authorisation
2. Review audit needs	<ol style="list-style-type: none"> 1. Security requirements that have been evaluated to date are reviewed and their appropriateness is discussed with auditors 2. Designs and client safety requirements are discussed with auditors and key stakeholders 3. Audit trails are agreed with auditors and the incorporation of any user needs is ensured, for example, managers may want to track staff activities
3. Identify appropriate controls	<ol style="list-style-type: none"> 1. Control methods that are being used on the system are reviewed, such as controls over input, output, files, processing, etc. 2. Mail monitoring processes determined to uncover breaches in various legal acts and legislation. 3. Module and system-wide controls are reviewed (eg. date/version checks, reconciliation procedures) against client requirements and safety requirements 4. Significant error handling is catered for (eg. acceptance/rejection of financial transactions) according to safety requirements 5. Controls for security and risk issues are documented and are presented to senior management and auditors for approval

UNIT	ICAITS118B Manage system security	
4. Incorporate controls into the system	1.	Controls to be added to the system, and controls which are environmental or operating system based such as user access, are identified
	2.	User access security provisions are documented by user classification to be applied at program, record or field level and inclusion of procedures for controlling the security provisions is ensured (eg. password allocation) according to client requirements
	3.	Senior management and auditor approval is obtained for the design of the controls
5. Implement additional security procedures	1.	External access is reviewed and appropriate devices such as firewalls are recommended
	2.	Market for firewalls is evaluated and recommendations are made to senior management
	3.	Firewall is installed and configured in accordance with manufacturer’s recommendation and security standards
	4.	Need is reviewed and recommendations are made for additional equipment such as hardware, network computers, secure hubs, switches etc.
	5.	Approved equipment is installed and is configured to provide required levels of security

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Security environment

Includes:

- relevant privacy laws,
- organisational security policies,
- ethical issues,
- customer requirements /expectations,
- expertise and knowledge that are, or may be, relevant.

The security environment also includes the threats to security which are, or are held to be, present in the environment.

Security requirements

Based on business needs and may be contained in the technical specifications

AS/NZS 4444, Information security management; AS/NZS 13594:1998, Information technology - Lower layers security

UNIT	ICAITS118B Manage system security
Statutory requirements	Can include legislation (such as Privacy Act), industry imposed controls and standards. In certain organisations such as health and banking there may be strict laws regarding confidentiality and reporting of data
Commercial and business requirements	Back-up, storage and recovery of data, access to internal network, passwords/logons, firewalls, hacking. Confidentiality, integrity, availability
Physical nature of security	The system and its location should be considered, wide area networks, access by people other than employees, and if the system, itself, is in an intrinsically secure building.
Security policy	Can cover theft, viruses, standards (including archival, back-up, network), privacy, audits, alerts and usually relates directly to the security objectives of the organisation
Security categories	Organisations with external access especially with the Internet may have strict requirements for categorising files and access.
Systems	Can include but are not limited to mainframes, distributed, Internet, networks
Operating system	Each product will have different functionality and ways of operating. Third party products may also be used in order to improve security.
Security Test	To confirm security monitoring processes are viable. The test will vary both in complexity and duration depending on the number of risk procedures employed
Risk	Some systems may be critical and so require higher levels of security.
Encryption	Built in or third party products may be used in organisations who have high risk data. RSA public key, PGP (Pretty Good Privacy), symmetric ciphers, asymmetric public-key ciphers, sniffers, PKI, SSH, DESlogin, PKZIP, Secure Socket Layer (SSL), Digital signatures
Software	Most likely to be packaged software but can be supplied from many varying vendors and can include security, audit, virus checking and encryption modules.
Firewalls	<p>May be part of router configuration and/or proxy server. Many vendor products are available such as:</p> <ul style="list-style-type: none"> • Cisco Centri • ConSeal • EMD Armor • Check Point FireWall-1 • CyberwallPLUS • SATAN
Security threats	Can include: eavesdropping, manipulation, and impersonation, penetration, denial of service and by-pass
Operating procedures	Handling of security internal breaches and customer requirements for security, frequency and nature of archives, back-ups; alerts, audits, review and test
Security strategy	Includes: privacy, authentication, authorisation, and integrity and usually relates directly to the security objectives of the organisation
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

UNIT	ICAITS118B Manage system security
-------------	---

Privacy/ Ethics	All monitoring of activity will comply with relevant legislative requirements. Users should be informed that monitoring may occur.
Documentation and Reporting	Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates

EVIDENCE GUIDE

Critical aspects of evidence	<p>Assessment must confirm knowledge of security features available in the operating environment.</p> <p>Assessment must confirm the ability to implement and manage security functions on a system.</p>		
Interdependent assessment of units	<p>This unit may be assessed with any of the following: ICAITS104B, ICAITS105B, ICAITS111B, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITS116B, ICAITS035C, ICAITAD041B, ICAITT063A The interdependence of units of competency for assessment will vary with the particular project or scenario</p>		
Underpinning skills and knowledge	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>Underpinning knowledge</p> <ul style="list-style-type: none"> Current industry accepted hardware and software products with broad knowledge of general features and capabilities Broad general knowledge of the client business domain, business function and organisation Systems technologies with broad knowledge of general features and capabilities incorporating substantial depth in some areas Risk analysis with broad knowledge of general features incorporating substantial depth in some areas Broad knowledge of general features of specific security technology incorporating substantial depth in some areas </td> <td style="width: 50%; padding: 5px;"> <p>Underpinning skills</p> <ul style="list-style-type: none"> Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in systems security methodologies and technologies Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas Questioning and active listening skills Project planning skills in relation to scope, time, cost, quality, communications and risk management. </td> </tr> </table>	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> Current industry accepted hardware and software products with broad knowledge of general features and capabilities Broad general knowledge of the client business domain, business function and organisation Systems technologies with broad knowledge of general features and capabilities incorporating substantial depth in some areas Risk analysis with broad knowledge of general features incorporating substantial depth in some areas Broad knowledge of general features of specific security technology incorporating substantial depth in some areas 	<p>Underpinning skills</p> <ul style="list-style-type: none"> Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in systems security methodologies and technologies Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas Questioning and active listening skills Project planning skills in relation to scope, time, cost, quality, communications and risk management.
<p>Underpinning knowledge</p> <ul style="list-style-type: none"> Current industry accepted hardware and software products with broad knowledge of general features and capabilities Broad general knowledge of the client business domain, business function and organisation Systems technologies with broad knowledge of general features and capabilities incorporating substantial depth in some areas Risk analysis with broad knowledge of general features incorporating substantial depth in some areas Broad knowledge of general features of specific security technology incorporating substantial depth in some areas 	<p>Underpinning skills</p> <ul style="list-style-type: none"> Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in systems security methodologies and technologies Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas Questioning and active listening skills Project planning skills in relation to scope, time, cost, quality, communications and risk management. 		
Resources	<p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence. Assessment may be carried out on site or using specific scenarios where the outcome is well defined. This should be a practical assessment using appropriate equipment and software with security restrictions.</p>		
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to address the ongoing implementation and monitoring aspects of this unit.</p>		

UNIT

ICAITS118B Manage system security

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

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 co-ordination.

The 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 co-ordination may be involved.

An individual demonstrating these competencies 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; and
- take limited responsibility for the achievement of group outcomes.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	3	3	3

UNIT	ICAITS119B Monitor and administer systems security
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to monitor and administer security functions on the system.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITU126B, ICAITU127B, ICAITS104B, ICAITS105B, ICAITS111B, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITS116B, ICAITS035C, ICAITT063A
---	--

ELEMENTS	PERFORMANCE CRITERIA
1. Ensure user accounts are controlled	<ol style="list-style-type: none"> 1. Default user settings are modified to ensure that they match security policies 2. Previously created user settings with more relaxed security are modified according to security and access policies 3. Appropriateness of legal notices displayed at log on is ensured 4. Appropriate utilities are used to check strength of passwords used 5. Procedures are reviewed to ensure that users who leave have their accounts disabled or deleted 6. Mail is monitored to uncover breaches in various legal acts and legislation. 7. Information services such as the Internet are accessed to identify well-known and up-to-date security gaps and these are plugged with appropriate hardware and/or software
2. Secure file and resource access	<ol style="list-style-type: none"> 1. In-built security and access features of the systems operating system are reviewed 2. File security categorisation scheme is reviewed or developed and an awareness of the role of users in setting security is ensured 3. Threats to systems are monitored such as hackers, eavesdropping, viruses, etc. 4. Virus checking software is implemented at server and workstations 5. In-built or additional encryption facilities are implemented as appropriate
3. Monitor threats to the network	<ol style="list-style-type: none"> 1. Appropriate third party software is used to evaluate and report on the security in place in the systems 2. Logs and audit reports are reviewed to identify security intrusions or attempts 3. Spot checks and other activities are carried out to ensure that procedures are not being bypassed 4. Audit report and recommendations are prepared and presented to senior management. Approval for changes to be made is obtained

UNIT

ICAITS119B Monitor and administer systems security

RANGE OF VARIABLES

VARIABLE

SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Security environment	<p>Includes:</p> <ul style="list-style-type: none"> • Relevant privacy laws, • organisational security policies, • ethical issues, • customer requirements /expectations, • expertise and knowledge that are, or may be, relevant. <p>The security environment also includes the threats to security which are, or are held to be, present in the environment.</p>
Security requirements	<p>Based on business needs and may be contained in the technical specifications</p> <p>AS/NZS 4444, Information security management; AS/NZS 13594:1998, Information technology - Lower layers security</p>
Statutory requirements	<p>Can include legislation (such as Privacy Act), industry imposed controls and standards. In certain organisations such as health and banking there may be strict laws regarding confidentiality and reporting of data</p>
Commercial and business requirements	<p>Back-up, storage and recovery of data, access to internal network, passwords/logons, firewalls, hacking. Confidentiality, integrity, availability</p>
Physical nature of security	<p>The system and its location should be considered, wide area networks, access by people other than employees, and if the system, itself, is in an intrinsically secure building.</p>
Security policy	<p>Can cover theft, viruses, standards (including archival, back-up, network), privacy, audits, alerts and usually relates directly to the security objectives of the organisation</p>
Security categories	<p>Organisations with external access especially with the Internet may have strict requirements for categorising files and access.</p>
Systems	<p>Can include but are not limited to mainframes, distributed, Internet, networks</p>
Operating system	<p>Each product will have different functionality and ways of operating. Third party products may also be used in order to improve security.</p>
Security Test	<p>To confirm security monitoring processes are viable. The test will vary both in complexity and duration depending on the number of risk procedures employed</p>
Risk	<p>Some systems may be critical and so require higher levels of security.</p>
Encryption	<p>Built in or third party products may be used in organisations who have high risk data. RSA public key, PGP (Pretty Good Privacy), symmetric ciphers, asymmetric public-key ciphers, sniffers, PKI, SSH, DESlogin, PKZIP, Secure Socket Layer (SSL), Digital signatures</p>
Software	<p>Most likely to be packaged software but can be supplied from many varying vendors and can include security, audit, virus checking and encryption modules.</p>

UNIT	
ICAITS119B Monitor and administer systems security	
Firewalls	<p>May be part of router configuration and/or proxy server. Many vendor products are available such as:</p> <ul style="list-style-type: none"> • Cisco Centri • ConSeal • EMD Armor • Check Point FireWall-1 • CyberwallPLUS • SATAN
Security threats	Can include: eavesdropping, manipulation, and impersonation, penetration, denial of service and by-pass
Operating procedures	Handling of security internal breaches and customer requirements for security, frequency and nature of archives, back-ups; alerts, audits, review and test
Security strategy	Includes: privacy, authentication, authorisation, and integrity and usually relates directly to the security objectives of the organisation
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Privacy/ Ethics	All monitoring of activity will comply with relevant legislative requirements. Users should be informed that monitoring may occur.
Documentation and Reporting	Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
EVIDENCE GUIDE	
Critical aspects of evidence	<p>Assessment must confirm knowledge of security features available in the operating environment.</p> <p>Assessment must confirm the ability to monitor and administer security functions on the system. This may include use of third party tools.</p>
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU126A, ICAITU127A, ICAITS104B, ICAITS105B, ICAITS111B, ICAITAD042B, ICAITI089A, ICAITI090A, ICAITAD056B, ICAITS116B, ICAITS035C, ICAITT063A The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITS119B Monitor and administer systems security
------	---

Underpinning skills and knowledge**Underpinning knowledge**

- Current industry accepted hardware and software products with broad knowledge of general features and capabilities
- Broad knowledge of the client business domain, business function and organisation
- Systems technologies with broad knowledge of general features and capabilities incorporating substantial depth in some areas
- Risk analysis with broad knowledge of general features
- Broad knowledge of general features of specific security technology
- Broad knowledge of privacy and privacy legislation

Underpinning skills

- Problem solving skills for a defined range of unpredictable problems
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in system security methodologies and technologies
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Questioning and active listening skills
- Project planning skills in relation to set benchmarks and identified scope.

Resources

Assessment may be carried out on site or using specific scenarios where the outcome is well defined. This should be a practical assessment using appropriate equipment and software with security restrictions.

Assessment of this unit of competence could include review of the audit report developed by the candidate.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to address the ongoing monitoring aspects of this unit.

UNIT	ICAITS119B Monitor and administer systems security
-------------	---

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	2	3	3

UNIT	ICAITS120B Administer and configure a network operating system
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to set up and use administrative tools to manage a network and create the network configuration required by client
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS114B, ICAITI097A, ICAITU018B, ICAITS023B, ICAITU019B, ICAITU126A, ICAITD128A, ICAITS020C, ICAITS025B, ICAITS024C
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Review network policies	<ol style="list-style-type: none"> 1. Organisation's policies and procedures for network use and administration are reviewed 2. Network administration tools that can be used to enforce policies and procedures are identified 3. Settings and parameters that should be used in order to meet policies and procedures are documented 4. Recommendations are made to management for ways of overcoming any weaknesses in administration tools
2. Create an interface with existing system	<ol style="list-style-type: none"> 1. Current system is identified through audits of hardware and software 2. System interaction is determined by identifying what data is required by particular users and how often the data is accessed 3. Existing applications are examined and are upgraded/ reconfigured to new environment 4. Reconfiguration is tested for successful interface with existing system
3. Set up and manage the network file system	<ol style="list-style-type: none"> 1. Client user network requirements are evaluated and an appropriate file and folder structure is designed 2. File and folder structure is created using appropriate administration and system tools 3. Security, access and sharing of file system are set to meet client user requirements 4. Virus protection requirements are identified by the network in line with organisational procedures 5. File system is tested to ensure that appropriate access is available to the client user groups 6. File system that is created is documented in accordance with organisational standards

UNIT		ICAITS120B Administer and configure a network operating system
4. Manage user services	<ol style="list-style-type: none"> 1. Client user network requirements are evaluated and an appropriate set of services that should be provided is designed 2. Services required are implemented by using the appropriate administration and system tools 3. Users and groups are created as required to facilitate user security and network access in accordance with client user authorisation 4. Achievement of access by client users to authorised network data and resources is tested 	
5. Monitor user accounts	<ol style="list-style-type: none"> 1. Default user settings are modified to ensure that they match security policies 2. Previously created user settings with more relaxed security are modified according to security and access policies 3. Display of appropriate legal notices at log on is checked 4. Appropriate utilities are used to check strength of passwords used 5. Procedures are reviewed to ensure that users who leave have their accounts disabled or deleted 6. Information services such as the Internet are accessed to identify well-known and up-to-date security gaps and these are plugged with appropriate hardware and/or software 	
6. Provide and support back-up security	<ol style="list-style-type: none"> 1. Network is checked and is ensured to be clean of viruses before back-up 2. Security requirements are reviewed for client users and data to be stored on network 3. Risks that data is exposed to are determined and appropriate prevention and recovery processes are provided 4. Systems to provide back-up and ability to restore services in the event of a disaster are implemented 5. Disaster recovery procedures are documented 	

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Network	May include but not restricted to large and small LANs, national WANs, the Internet, the use of the PSTN for dial up modems only, private lines, data and voice, etc. This does not include international WANs
Operating systems	Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare
Documentation and Reporting	Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates

UNIT	ICAITS120B Administer and configure a network operating system
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
File system	May involve multiple or single servers, multiple or single logical disks and complex directory or folder structures
Back-up	May involve simple, single tape unit back-up to more comprehensive and complex back-up facilities across the network.

EVIDENCE GUIDE

Critical aspects of evidence	<p>Assessment must confirm knowledge of the facilities available in the operating environment.</p> <p>Assessment must confirm the ability to use network administrative tools and manage a network.</p> <p>Assessment must confirm the ability to create the network configuration required by the client and provide timely client service.</p>	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS114B, ICAITI097A, ICAITU018B, ICAITS023B, ICAITU019B, ICAITU126A, ICAITD128A, ICAITS020C, ICAITS025B, ICAITS024C The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • Broad general knowledge of the client business domain, business function and organisation • Broad general knowledge of network security • Networking technologies with broad knowledge of general features and capabilities incorporating substantial depth in some areas 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Plain English literacy and communication skills in relation to dealing with clients and team members • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Questioning and active listening skills in relation to dealing with clients and team members • Project planning skills in relation to scope, time, cost, quality, communications and risk management.

UNIT	ICAITS120B Administer and configure a network operating system
-------------	---

Resources

To demonstrate this unit of competence the candidate will require access to:

- User network requirements
- Network administration tools
- Access policy

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate some relevant theoretical knowledge;
- apply a range of well developed skills;
- apply known solutions to a variety of predictable problems;
- perform processes that require a range of well developed skills where some discretion and judgement is required;
- interpret available information, using discretion and judgement;
- take responsibility for one’s own outputs in work and learning; and
- take limited responsibility for the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	2	2	2	2	3

UNIT	ICAITS121A Administer network peripherals
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to manage a networked peripheral environment in order to provide services to client users
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Install peripherals to a network	<ol style="list-style-type: none"> 1. Location of peripherals is planned to provide appropriate services to client users and to take into consideration OHS factors 2. Peripherals are connected to network using vendor approved method and/or technology 3. Peripherals are connected to computers in the network using parallel, serial or other direct connection methods 4. Peripherals, accessories or upgrades to printers such as memory or high volume paper trays are added 5. Peripherals are tested for correct operation
2. Configure peripheral services to manage peripherals	<ol style="list-style-type: none"> 1. Peripherals services are installed to manage local and network connected peripherals 2. Meaningful names for peripherals and/or queues are used 3. Security and access are configured to allow appropriate users to make use of peripherals 4. Workstation peripherals facilities are configured to allow peripheral with popular operating systems and user applications
3. Administer and support peripheral services	<ol style="list-style-type: none"> 1. Control queues are assigned priority 2. Network peripherals management software is used that is either supplied by peripheral vendor, or included as part of the network operating system, or supplied by third parties 3. Templates are created for use on the network 4. Maintenance schedules, usage logs, cost centre usage statistics are developed 5. Capacity to use peripheral services from their application or workstation is demonstrated to users

UNIT		ICAITS121A Administer network peripherals
4. Troubleshoot common problems	<ol style="list-style-type: none"> 1. Regular maintenance schedule is carried out as recommended by peripheral manufacturer 2. Consumables, and other components are replaced when due 3. Other peripheral mishaps and malfunctions are fixed 4. Peripherals usage and/or traffic is monitored and additional peripherals are recommended when needed 5. Failure of peripheral services is determined and rectified 	

RANGE OF VARIABLES	
VARIABLE	SCOPE
Network	May include but not restricted to large and small LANs, national and international WANs, the Internet, the use of the PSTN for dial up modems only, private lines, data and voice, etc.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Printers	May include but not restricted to laser printers, ink jet, mono or colour, etc.
Connectivity	May include but not restricted to Ethernet, Appletalk, serial and parallel
Network operating system	Each product will have different functionality and ways of operating. Third party products may also be used in printer administration.
EVIDENCE GUIDE	
Critical aspects of evidence	<p>Assessment must confirm knowledge of peripheral technologies and how network peripherals (hardware and software) are installed and configured.</p> <p>Assessment must confirm the ability to maintain networked peripherals in working order</p>
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS114B, ICAITI097A, ICAITU018B, ICAITS023B, ICAITU019B, ICAITU126A, ICAITD128A, ICAITS020C, ICAITS025B, ICAITS024C The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITS121A Administer network peripherals	
Underpinning skills and knowledge	Underpinning knowledge <ul style="list-style-type: none"> • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • Broad general knowledge of the client business domain, business function and organisation • Degree of stakeholder involvement • Specific knowledge of three different kinds of peripherals • Networking technologies with broad knowledge of general features and capabilities incorporating substantial depth in some areas 	Underpinning skills <ul style="list-style-type: none"> • Plain English literacy and communication skills in relation to dealing with clients and team members • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Questioning and active listening skills in relation to clients and team members • Problem solving skills for a defined range of predictable problems • Project planning skills in relation to set benchmarks and identified scope
Resources	<p>Assessment may be carried out on site or using specific scenarios where the outcome is well defined. This should be a practical assessment using appropriate equipment.</p> <p>Peers and supervisors for obtaining information on the extent and quality of the contribution made.</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p>	
Context	<p>This competency can be assessed in the workplace or in a simulated environment. If this competency is assessed as part of a training course and the candidate is not employed in the industry they will need to demonstrate familiarity with 2 or more network systems by identifying the general features, strengths and the weaknesses of each in relation to the client's business requirements. This is in addition to the above critical aspects of evidence</p>	

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS122A Troubleshoot and resolve network problems
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to undertake various support activities associated with a network to maintain service and resolve problems.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implement, Use, the teamwork functional areas and documentation
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine level of support required	<ol style="list-style-type: none"> 1. Support requirements are reviewed with users and criticality of the network and level of support needed are identified 2. Support plan is produced demonstrating how user requirements are to be satisfied and identifying resources needed 3. Service Level Agreements and other support policies are developed 4. Support plan is presented to management for approval and authorisation
2. Identify, obtain and use tools for support	<ol style="list-style-type: none"> 1. Tools that are required to support the network are identified using SLAs and policies as a guide 2. Vendor's products are evaluated and appropriate tools are selected, both hardware and software 3. Support tools are installed and operation tested 4. Tools are used in a regular, ad-hoc and on demand fashion to evaluate network performance and troubleshoot the network
3. Implement regular network monitoring	<ol style="list-style-type: none"> 1. Appropriate logs required to monitor network activity are set up 2. Critical activity levels are identified and alerts and other warning systems are set up 3. Documents and logs are regularly reviewed to tune network 4. Recommendations to management are made for additional network resources to improve performance or pro-actively avoid problems
4. Troubleshoot network problems	<ol style="list-style-type: none"> 1. Help desk and other support services are communicated with to quickly identify a network problem 2. Problems that occur in networks are discovered 3. Various tools are used to identify and solve network problems 4. Clients are advised of progress, solutions and/or work-arounds in timely and empathic manner 5. Support documentation is completed in accordance with organisation standards

UNIT	ICAITS122A Troubleshoot and resolve network problems
-------------	---

RANGE OF VARIABLES

VARIABLE	SCOPE
Network	May include but not restricted to large and small LANs, national WANs, the Internet, the use of the PSTN for dial up modems only, private lines, data and voice, etc.
Risk	Some networks may be critical and so quick response for support is essential.
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Network operating system	Each product will have different functionality and ways of operating. Third party products may also be used in troubleshooting and monitoring.
Software	Most likely to be packaged software but can be supplied from many varying vendors and can include troubleshooting and monitoring components.

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm knowledge of the troubleshooting and monitoring facilities available in the operating environment. Assessment must confirm the ability to undertake network support activities and monitor the network to maintain network activities. This can involve third party products	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS114B, ICAITI097A, ICAITU018B, ICAITS023B, ICAITU019B, ICAITU126A, ICAITD128A, ICAITS020C, ICAITS025B, ICAITS024C The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • Broad general knowledge of the client business domain, business function and organisation • Degree of stakeholder involvement • Networking technologies with broad knowledge of general features and capabilities incorporating substantial depth in some areas • Network management tools with broad knowledge of general features and capabilities incorporating substantial depth in some areas • Broad knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations • Detailed knowledge of the organisational escalation procedures 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Plain English literacy and communication skills in relation to dealing with clients and team members • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Questioning and active listening skills in relation to clients and team members • Stress management skills • Analysis skills for identifying, analysing and evaluating support issues and network problems • Project planning skills in relation to scope, time, cost, quality, communications and risk management. • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives

UNIT	ICAITS122A Troubleshoot and resolve network problems
-------------	--

Resources	Assessment may be carried out on site or using specific scenarios where the outcome is well defined. This should be a practical assessment using appropriate equipment and software. Peers and supervisors for obtaining information on the extent and quality of the contribution made.
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITS123B Manage network security
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to implement and manage security functions on the network.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITAD043A, ICAITAD044A, ICAITAD056B, ICPMM61cA, ICPMM81eA, ICPMM82eA
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify threats to network	<ol style="list-style-type: none"> 1. Risk analysis is carried out and threats to network are evaluated, such as hackers, eavesdropping, viruses, etc. internal versus external 2. Cost effective measures are identified to recover from or prevent threats 3. Security policies and disaster recovery plan are developed 4. Plan is presented to management for approval and authorisation
2. Review audit needs	<ol style="list-style-type: none"> 1. Security requirements that have been evaluated to date are reviewed and their appropriateness is discussed with auditors 2. Designs and client safety requirements are discussed with auditors and key stakeholders 3. Audit trails are agreed with auditors and the incorporation of any user needs is ensured, for example, managers may want to track staff activities
3. Identify appropriate controls	<ol style="list-style-type: none"> 1. Control methods that are being used on the network are reviewed, such as controls over input, output, files, processing, etc. 2. Module and network-wide controls are reviewed (eg. date/version checks, reconciliation procedures) against client requirements and safety requirements 3. Significant error handling is catered for (eg. acceptance/rejection of financial transactions) according to safety requirements 4. Controls for security and risk issues are documented and are presented to senior management and auditors for approval
4. Incorporate controls into the network	<ol style="list-style-type: none"> 1. Controls to be added to the network, and controls which are environmental or network based such as user access, are identified 2. User access security provisions are documented by user classification to be applied at program, record or field level and inclusion of procedures for controlling the security provisions is ensured (eg. password allocation) according to client requirements 3. Senior management and auditor approval is obtained for the design of the controls

UNIT	ICAITS123B Manage network security
-------------	--

5. Implement additional security facilities	<ol style="list-style-type: none"> 1. External or intra network access is reviewed and appropriate devices such as firewalls are recommended 2. Market for firewalls is evaluated and recommendations are made to senior management 3. Firewall is installed and configured in accordance with manufacturer’s recommendation and security standards 4. Need is reviewed and recommendations are made for additional equipment such as hardware, network computers, secure hubs, switches etc. 5. Approved equipment is installed and is configured to provide required levels of security
---	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Network	May include but not restricted to large and small LANs, national and international WANs, the Internet, the use of the PSTN for dial up modems only, private lines, data and voice, etc.
Security environment	Includes: <ul style="list-style-type: none"> • Relevant privacy laws, • organisational security policies, • ethical issues, • customer requirements /expectations, • expertise and knowledge that are, or may be, relevant. The security environment also includes the threats to security which are, or are held to be, present in the environment.
Security requirements	Based on business needs and may be contained in the technical specifications AS/NZS 4444, Information security management; AS/NZS 13594:1998, Information technology - Lower layers security
Statutory requirements	Can include legislation (such as Privacy Act), industry imposed controls and standards. In certain organisations such as health and banking there may be strict laws regarding confidentiality and reporting of data
Commercial and business requirements	Back-up, storage and recovery of data, access to internal network, passwords/logons, firewalls, hacking. Confidentiality, integrity, availability
Physical nature of security	The network and its location should be considered, wide area networks, access by people other than employees, and if the system, itself, is in an intrinsically secure building.
Security policy	Can cover theft, viruses, standards (including archival, back-up, network), privacy, audits, alerts and usually relates directly to the security objectives of the organisation
Operating systems	Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare

UNIT	ICAITS123B Manage network security
Security Test	To confirm security monitoring processes are viable. The test will vary both in complexity and duration depending on the number of risk procedures employed
Risk	Some networks may be critical and so require higher levels of security.
Encryption	Built in or third party products may be used in organisations who have high risk data. RSA public key, PGP (Pretty Good Privacy), symmetric ciphers, asymmetric public-key ciphers, sniffers, PKI, SSH, DESlogin, PKZIP, Secure Socket Layer (SSL), Digital signatures
Software	Most likely to be packaged software but can be supplied from many varying vendors and can include security, audit, virus checking and encryption modules.
Firewalls	<p>May be part of router configuration and/or proxy server. Many vendor products are available such as:</p> <ul style="list-style-type: none"> • Cisco Centri • ConSeal • EMD Armor • Check Point FireWall-1 • CyberwallPLUS • SATAN
Security threats	Can include: eavesdropping, manipulation, and impersonation, penetration and by-pass
Operating procedures	Handling of security internal breaches and customer requirements for security, frequency and nature of archives, back-ups; alerts, audits, review and test
Security strategy	Includes: privacy, authentication, authorisation, and integrity and usually relates directly to the security objectives of the organisation
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Privacy/ Ethics	All monitoring of activity will comply with relevant legislative requirements. Users should be informed that monitoring may occur.
Documentation and Reporting	Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,

UNIT	ICAITS123B Manage network security
-------------	--

EVIDENCE GUIDE

Critical aspects of evidence	<p>Assessment must confirm knowledge of security features available in the operating environment.</p> <p>Assessment must confirm the ability to implement and manage security functions on the network.</p>	
Interdependent assessment of units	<p>This unit may be assessed with any of the following: ICAITAD043B, ICAITAD044B, ICAITAD056B, ICPMM61cA, ICPMM81eA, ICPMM82eA The interdependence of units of competency for assessment will vary with the particular project or scenario</p>	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • Broad general knowledge of the client business domain, business function and organisation • Networking technologies with broad knowledge of general features and capabilities incorporating substantial depth in some areas • Risk analysis with broad knowledge of general features incorporating substantial depth in some areas • Broad knowledge of general features of specific security technology incorporating substantial depth in some areas 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in network security methodologies and technologies • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Questioning and active listening skills • Project planning skills in relation to scope, time, cost, quality, communications and risk management.
Resources	<p>This should be a practical assessment using appropriate equipment and software with security restrictions.</p> <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to identify appropriate controls and meet the installation requirements of this unit.</p>	

UNIT

ICAITS123B Manage network security

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

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 co-ordination.

The 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 co-ordination may be involved.

An individual demonstrating these competencies 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; and
- take limited responsibility for the achievement of group outcomes.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	2	3	3

UNIT	ICAITS124B Monitor and administer network security
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to monitor and administer security functions on the network.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITAD043A, ICAITAD044A, ICAITAD056B, ICPMM61cA, ICPMM81eA, ICPMM82eA
---	--

ELEMENT	PERFORMANCE CRITERIA
1. Ensure user accounts are controlled	<ol style="list-style-type: none"> 1. Default user settings are modified to ensure that they match security policies 2. Previously created user settings with more relaxed security are modified according to security and access policies 3. Appropriateness of legal notices displayed at log on is ensured 4. Appropriate utilities are used to check strength of passwords used 5. Procedures are reviewed to ensure that users who leave have their accounts disabled or deleted 6. Information services such as the Internet are accessed to identify well-known and up-to-date security gaps and these are plugged with appropriate hardware and/or software
2. Ensure secure file and resource access	<ol style="list-style-type: none"> 1. In-built security and access features of the network operating system are reviewed 2. File security categorisation scheme is reviewed or developed and an awareness of the role of users in setting security is ensured 3. Threats to network are monitored such as hackers, eavesdropping, viruses, etc. 4. Virus checking software is implemented at server and workstations 5. In-built or additional encryption facilities are implemented as appropriate
3. Monitor threats to the network	<ol style="list-style-type: none"> 1. Appropriate third party software is used to evaluate and report on the security in place in the network 2. Logs and audit reports are reviewed to identify security intrusions or attempts 3. Spot checks and other activities are carried out to ensure that procedures are not being bypassed 4. Audit report and recommendations are prepared and are presented to senior management. Approval for changes to be made is obtained

UNIT	ICAITS124B Monitor and administer network security
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Network	May include large and small LANs, Intranets, the Internet
Security environment	Includes: <ul style="list-style-type: none"> • Relevant privacy laws, • organisational security policies, • ethical issues, • customer requirements /expectations, • expertise and knowledge that are, or may be, relevant. <p>The security environment also includes the threats to security which are, or are held to be, present in the environment.</p>
Security requirements	Based on business needs and may be contained in the technical specifications AS/NZS 4444, Information security management; AS/NZS 13594:1998, Information technology - Lower layers security
Statutory requirements	Can include legislation (such as Privacy Act), industry imposed controls and standards. In certain organisations such as health and banking there may be strict laws regarding confidentiality and reporting of data
Commercial and business requirements	Back-up, storage and recovery of data, access to internal network, passwords/logons, firewalls, hacking. Confidentiality, integrity, availability
Physical nature of security	The network and its location should be considered, wide area networks, access by people other than employees, and if the network, itself, is in an intrinsically secure building.
Security policy	Can cover theft, viruses, standards (including archival, back-up, network), privacy, audits, alerts and usually relates directly to the security objectives of the organisation
Operating systems	Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare
Security Test	To confirm security monitoring processes are viable. The test will vary both in complexity and duration depending on the number of risk procedures employed
Risk	Some networks may be critical and so require higher levels of security.
Encryption	Built in or third party products may be used in organisations who have high risk data. RSA public key, PGP (Pretty Good Privacy), symmetric ciphers, asymmetric public-key ciphers, sniffers, PKI, SSH, DESlogin, PKZIP, Secure Socket Layer (SSL), Digital signatures
Software	Most likely to be packaged software but can be supplied from many varying vendors and can include security, audit, virus checking and encryption modules.
Firewalls	May be part of router configuration and/or proxy server. Many vendor products are available such as: Cisco Centri, ConSeal, EMD Armor, Check Point FireWall-1, CyberwallPLUS, SATAN

UNIT	ICAITS124B Monitor and administer network security
Security threats	Can include: eavesdropping, manipulation, and impersonation, penetration and by-pass
Operating procedures	Handling of security internal breaches and customer requirements for security, frequency and nature of archives, back-ups; alerts, audits, review and test
Security strategy	Includes: privacy, authentication, authorisation, and integrity and usually relates directly to the security objectives of the organisation
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Privacy/ Ethics	All monitoring of activity will comply with relevant legislative requirements. Users should be informed that monitoring may occur.
Documentation and Reporting	Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, Acer, Altos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,

UNIT

ICAITS124B Monitor and administer network security

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm knowledge of security features available in the operating environment.

Assessment must confirm the ability to monitor and administer security functions on the network. This may include use of third party tools.

Interdependent assessment of units

This unit may be assessed with any of the following: ICAITAD043B, ICAITAD044B, ICAITAD056B, ICPMM61cA, ICPMM81eA, ICPMM82eA The interdependence of units of competency for assessment will vary with the particular project or scenario

Underpinning skills and knowledge**Underpinning knowledge**

- Current industry accepted hardware and software products with broad knowledge of general features and capabilities
- Broad knowledge of the client business domain, business function and organisation
- Networking technologies with broad knowledge of general features and capabilities incorporating substantial depth in some areas
- Risk analysis with broad knowledge of general features
- Broad knowledge of general features of specific security technology
- Broad knowledge of privacy and privacy legislation

Underpinning skills

- Problem solving skills for a defined range of unpredictable problems
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in network security methodologies and technologies
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Questioning and active listening skills
- Project planning skills in relation to set benchmarks and identified scope.

Resources

This should be a practical assessment using appropriate equipment and software with security restrictions.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time.

UNIT	ICAITS124B Monitor and administer network security
-------------	---

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	2	2	2	3	3

UNIT	ICAITS125B Monitor and administer a database
FIELD	Support
DESCRIPTION	This unit describes the competency required to manage and monitor a database
RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITS108B, ICAITS113B, ICAITAD043A, ICAITAD044A, ICAITAD056B, ICPMM61cA, ICPMM81eA, ICPMM82eA

ELEMENT	PERFORMANCE CRITERIA
1. Start up a database	<ol style="list-style-type: none"> 1. System configured for database start up 2. Monitor database mode and start up for any irregularities
2. Manage database	<ol style="list-style-type: none"> 1. Data dictionary usage monitored 2. Data integrity constraints are maintained according to business requirements 3. Indexes and clusters are managed according to business requirements 4. Lock contention is monitored 5. Recent back-ups of database confirmed 6. Data storage is monitored for ongoing viability and resized accordingly 7. Data is updated according to organisational policy
3. Manage database access	<ol style="list-style-type: none"> 1. Access privileges are allocated or removed according to user status 2. Privileges are monitored for breaches 3. Remote access and security mechanisms are monitored 4. System resources are managed

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Database options	<p>Can include but not limited to:</p> <ul style="list-style-type: none"> • relationship databases, • object-relational databases, • proprietary databases, • off the shelf database packages
-------------------------	---

UNIT	ICAITS125B Monitor and administer a database
Tools	<p>Variables may include but are not limited to: vendor specific database administration tools. Tools include any item or tool used to administer databases.</p> <p>The most appropriate administration tool employed in the most efficient manner.</p>
Databases	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> • Oracle, • Sybase, • Microsoft SQL Server, • Ingres, • DB2, • Informix, mSQL, MySQL, SQL Server etc
SQL	<p>may include proprietary extensions. AS/NZS 3968.0:1994 Information technology - Database languages - SQL - Definition of data structures and basic operations</p>
Database files	<p>Number and naming conventions will vary according to type of database</p>
Database dictionary	<p>Fields and definitions will vary according to data/information to be loaded</p>
IT Platform	<p>IT platform on which database will sit and will affect considerations such as: database options, size of database, and performance of database.</p>
Performance/Tuning enhancements	<p>Can include but not restricted to: improvements to response time, simultaneous access</p>
Security	<p>Security requirements will impact on the back-up methodologies employed</p>
Database support functions	<p>Can include, but not are not restricted to: database administrator, supplier support, development support – database designer, maintenance of database dictionary, database security</p>
Operating systems	<p>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare</p>
Client User	<p>May be a department within the organisation or a third party and so the relation and ease of access will vary.</p>
Documentation and Reporting	<p>Includes maintaining standards of definition, standards of format, user access information. Information should be clear and written in such a way that it will be readily understood by the target audience.</p>
Organisational Standards	<p>May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used</p>
OH and S Standards	<p>As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency</p>
Back-up	<p>May involve single tape unit back-up to more comprehensive and complex back-up facilities across the network.</p>
Database support functions	<p>Can include but not are not restricted to:</p> <ul style="list-style-type: none"> • database administrator, • supplier support, • development support – database designer, • maintenance of database dictionary, • database security

UNIT

ICAITS125B Monitor and administer a database

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to consistently manage a database and database usage	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS108B, ICAITS113B, ICAITAD043B, ICAITAD044B, ICAITAD056B, ICPMM61cA, ICPMM81eA, ICPMM82eA. The interdependence of units of competency for assessment will vary with the particular project or scenario.	
Underpinning skills and knowledge	Underpinning knowledge <ul style="list-style-type: none"> • Detailed knowledge of SQL • Detailed knowledge of database administration • Detailed knowledge of tuning methodologies • General knowledge of the principles of databases • Detailed knowledge of database management tools • Detailed knowledge of back-up and recovery methodologies • Detailed knowledge of database security 	Underpinning skills <ul style="list-style-type: none"> • Analysis skills in relation to non-routine work processes • Project planning skills in relation to set benchmarks and identified scope • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Problem solving skills in non-routine work processes • Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in database administration
Resources	To demonstrate this unit of competence the candidate will require access to: <ul style="list-style-type: none"> • A live database Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts. Simulated activities must closely reflect the workplace and may need to take place over a period of time.	

UNIT	ICAITS125B Monitor and administer a database
-------------	--

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

KEY COMPETENCIES						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	3	2	2	3	3

UNIT	ICAITS134A Provide remote helpdesk support
FIELD	Support
DESCRIPTION	This unit defines the competency required to resolve first level user support difficulties remotely
RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.

ELEMENT	PERFORMANCE CRITERIA
1. Determine the user support issue	<ol style="list-style-type: none"> 1. Determine the eligibility status of the individual experiencing the user support difficulty against organisational policies for user support services. 2. Clarify the user support difficulty with customer/client using active listening (if over the phone) and questioning techniques 3. Confirm the user support difficulty with client without using jargon
2. Identify the hardware or software being used by the customer/client	<ol style="list-style-type: none"> 1. Identify the software, hardware or application (browser, operating system, hardware) being used by the customer/ client 2. Identify the outcome the client is trying to achieve and where they are in the process using active listening (if over the phone) and questioning techniques 3. Step the Client back to the beginning of the process without using jargon 4. Walk the Client through the process in a clear and logical manner without using jargon
3. Confirm resolution of user support issue	<ol style="list-style-type: none"> 1. Eliminate factors that may create the user support issue 2. Walk/ talk the customer/client successfully through complete process 3. Offer next level escalation process to the client and explain costs, if resolution is unsuccessful, or, refer client to next level of support for resolution
4. Maintain communication link	<ol style="list-style-type: none"> 1. Confirm resolution of difficulty with client in line with the organisation's customer service policy 2. Confirm Client/ customer satisfaction with current service in line with the organisation's customer service policy 3. Inform Client of additional support or services available in line with the organisation's customer service policy 4. Provide Client with additional information related to products and services offered by the organisation as required by the organisation's up selling requirements 5. Complete Customer contact in line with the organisation's customer service requirements.

UNIT	ICAITS134A Provide remote helpdesk support
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualise the unit of competence and provide a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Remote support	Remote support may include a customer contact centre via a phone, e-mail, real-time website support, or other real-time support
Up selling	Different organisations will have different up-selling targets and requirements, these organisations will have a procedure to be followed when up-selling to customers
Equipment	May include telephones and call centre specific applications which incorporate real-time support for web based products and services and email
Customer service policies	Each organisation will have a customer service approach and customer service policy which will need to be displayed during the demonstration of this unit of competence
User support policies	Each organisation will have different criteria for determining eligibility to access user support services. In many cases user support will be available once a service fee has been paid
Escalation procedures	Escalation procedures will vary according to the organisation
Workplace environment	May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organisation
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates
Standards and procedures	Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements
Cultural understanding	<p>Cultural understanding requires the capacity to apply an understanding of cultures when carrying out workplace tasks, including commitment to organisational goals such as quality, safety, efficiency, teamwork, security, environmental protection, customer service and personal development, and interacting with people from widely different backgrounds and cultures in the achievement of common work goals.</p> <ul style="list-style-type: none"> • Manages processes • Selects the criteria for the evaluation process

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence	Assessment must confirm the ability to successfully resolve user support difficulties remotely whilst displaying good customer service skills and the ability to up-sell as required.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and it is recommended that it be assessed in a holistic manner with the technical/ support units.

UNIT

ICAITS134A Provide remote helpdesk support

Underpinning skills and knowledge

Underpinning knowledge

- Demonstrate some relevant theoretical knowledge of customer service policies in relation to total unit
- Knowledge application of escalation procedures in a clearly defined range of contexts
- User support policies of limited complexity in the range of known options
- OHS procedures related to own work environment and organisational requirements
- Organisational benchmarks for keyboarding and for safe usage

Underpinning skills

- Up-selling skills where some discretion and judgement is required particularly in relation to 3.3 and 4.4
- Apply a range of well developed customer service skills in relation to retaining customers
- Using call centre specific systems for recording and accessing information and following procedures
- Active listening skills in relation to identifying customer problems and identifying where in the process the problem has occurred
- Communication is clear and precise in relation to identifying customer problems, identifying where in the process the problem has occurred and providing advice to resolve the problem
- Interpretation of user manuals for purposes of resolving customer problems and guiding customers through manuals

Resources

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

To demonstrate this unit of competence the candidate will require access to documents detailing:

- Customer service policies,
- User support policies,
- Escalation procedures,

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence as would real-time monitoring of calls or the review of e-mails

Consistency

Competence in this unit may be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to address the ongoing implementation and monitoring aspects of this unit.

UNIT	ICAITS134A Provide remote helpdesk support
-------------	---

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate some relevant theoretical knowledge; apply a range of well developed skills;
- apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required;
- interpret available information, using discretion and judgement;
- take responsibility for ones own outputs in work and learning;
- and take limited responsibility for the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	3	1	2	Nil	3	2

UNIT	ICAITS191A Maintain web site performance
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to ensure that a web site performance remains effective once it has 'gone live'.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Benchmark performance	<ol style="list-style-type: none"> 1. Business and customer performance expectations are identified from requirements documentation 2. Administration and maintenance benchmarks are identified according to technical requirements 3. Security bench marks are identified according the business requirements 4. Benchmark standards are documented and applied
2. Track site performance	<ol style="list-style-type: none"> 1. Performance is measured against benchmarks across all key performance areas 2. Procedures and processes for users and administrators to identify faults or suggest improvements are established and implemented according the business requirements 3. Automatic fault reporting procedures and processes are established and monitored according the business requirements 4. Security measures are monitored and maintained 5. Administration and maintenance schedules are developed and implemented according to enterprise needs 6. Preventative maintenance and or administration indicators are identified and alert system established 7. User activity is tracked and changes made according to user activity, if necessary

UNIT	ICAITS191A Maintain web site performance
3. Tune performance	<ol style="list-style-type: none"> 1. Actual performance standards are compared against benchmarks over an appropriate period and changes made based on discrepancies 2. Performance shortfalls are corrected and changes documented according to documentation standards 3. Diagnostic tools are used to correct faults and ensure performance benchmarks 4. Preventative maintenance is undertaken on a regular basis to ensure continuous and consistent performance 5. Fault correction, maintenance and administration is completed and changes documented
4. Initiate performance improvement	<ol style="list-style-type: none"> 1. User surveys or feedback channels are available to identify any maintenance or administration requirements in order ensure that the site continues to meet user expectations 2. Security tools and procedures are reviewed and improved as necessary 3. Maintenance and monitoring schedules are documented and implemented according the business requirements 4. Maintenance and administration documentation is evaluated to identify areas for performance improvement. Eg common faults or administration problems are identified from documentation and improvements developed and implemented 5. Update site on a regular basis, i.e. including currency of information, links and releasing new versions of processes on the site. 6. Responses to users who provide feedback and information are provided promptly.

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Documentation	Benchmarks have been developed and disseminated prior to assessment. Maintenance and administration policies, procedures and processes are established.
Server analysis tools	A number of commercially available software products may be used depending on functionality for example: <ul style="list-style-type: none"> • Apache Jserv, • Apache JSSI, • Apache Jmeter,

UNIT	ICAITS191A Maintain web site performance
Web development standards	<p>Web Content Accessibility Guidelines 1.0 (WCAG)</p> <p>Authoring Tool Accessibility Guidelines 1.0 (ATAG)</p> <p>User Agent Accessibility Guidelines 1.0 (UAAG)</p>
Customer Interface	<p>Customer documentation is available that has identified the probable customer expectation; software, hardware and operating system preferences; and has enabled the candidate to conduct a user analysis.</p>
Operating System	<p>Win 95/98/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC, VMS, Mac OSX, Linux, Netware</p>
Servers	<p>One or more servers depending on size and functionality of website and may include:</p> <ul style="list-style-type: none"> • BEA Weblogic Servers, • Apache HTTP Server, • IBM VisualAge and WebSphere, • Microsoft-Internet-Information-Server, Microsoft-IIS, Microsoft-IIS-W, Microsoft-PWS-95, & Microsoft-PWS • Windows 2000 Server, • NetDynamics, • Lotus Domino • Netscape Enterprise Server, Netscape-FastTrack, Netscape-Commerce • Sun Micro Systems iPlanet Web Server, • iPlanet-Enterprise • Sun Micro Systems Java Web Server • Email Servers; • File & Print Servers; • FTP Servers; • Proxy Servers

UNIT	ICAIT191A Maintain web site performance
-------------	--

Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Work stations, PCs • Networks • Remote Sites • Servers
Operating Systems	<p>Win 95/98/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC, VMS, Mac OSX, Linux, Netware</p>
E-commerce models	<p>Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models</p>
E-Business	<p>Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts</p>
Knowledge Economy	<p>Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.</p>

EVIDENCE GUIDE

Critical aspects of evidence	<p>Assessment must confirm the ability to develop and maintain performance benchmarks to ensure that the performance of the web site is consistent and continuous and meets customer and business expectations.</p> <p>Where expectations are not met assessment must confirm an ability to identify the fault and undertake appropriate remedial action.</p> <p>Assessment must concurrently confirm ability of candidates to implement scheduled and non-scheduled routine maintenance and administration tasks that ensure site effectiveness is maintained.</p>
Interdependent assessment of units	<p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.</p>

UNIT	ICAITS191A Maintain web site performance	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Website architecture • Website security • Work Load Metrics • Technical Performance Measurement • Business process design • Customer and business liaison • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles. • User and business performance expectations • Applying performance benchmarks • Electronic Commerce Modelling Language • Australian Computer Society Code Of Ethics 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Website development • Website analysis • Technical test design • Test implementation • Test evaluation • Evaluation feedback • Evaluation analysis • Fault diagnosis • Fault correction • Implementing administration and maintenance schedules
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Webservers and website • Technical requirements <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate an ability to develop and implement benchmarks to measure site performance standards against user and business expectations. Routine and non-routine scheduled and non-scheduled site maintenance and administration is implemented in accordance with documented policies and procedures. Maintenance and administration is documented as is required by business policies and procedures.</p>	

UNIT	ICAITS191A Maintain web site performance
-------------	---

Context

Breadth, depth and complexity involving analysis, documentation and design across a broad range of technical and/or managerial functions including identifying the technical and human computer interface requirements which drive design. Contribution to the development of a broad plan, budget or strategy is involved and accountability and responsibility for self and others in achieving the outcomes is involved.

Applications involve significant judgement in planning, design, evaluation, technical or leadership/guidance and communications functions related to products, services, operations, processes and procedures.

The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.

An individual demonstrating these competencies would be able to:

- Demonstrate understanding of specialised knowledge with depth in some areas;
- Analyse, diagnose, design and execute judgements across a broad range of technical or management functions;
- Demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills;
- Generate ideas through the analysis of information and concepts at an abstract level;
- Demonstrate accountability for personal outputs within broad parameters; and

Demonstrate accountability for group outcomes within broad parameters.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	1	2	2	2

UNIT	ICAITS192A Configure an Internet Gateway
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to connect network hardware devices mainly PCs to a internet gateway
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Confirm client requirements and network equipment	<ol style="list-style-type: none"> 1. Customer requirements are confirmed and validated as required 2. Scope of internet services required is determined with reference to customer requirements 3. Considerations are given to redundancy with reference to fault tolerance, backup links and gateway configuration 4. Network components, both hardware and software that are required to be installed are identified 5. Equipment specifications are confirmed and availability of all components ensured
2. Security issues are reviewed	<ol style="list-style-type: none"> 1. Security features of internet gateway are assessed with reference to network architecture and enterprise security plan 2. Discussions with ISP are held with reference to firewalls and other security measures as required 3. Users are briefed of enterprise security plan with reference to internet use
3. Gateway products and equipment are installed and configured	<ol style="list-style-type: none"> 1. Installation and configuration processes are identified 2. Gateway products and equipment are installed and configured as required by technical requirements 3. Tests are planned and executed with reference to client requirements and network impact 4. Error report is analysed and changes made as required

UNIT	ICAITS192A Configure an Internet Gateway
-------------	--

4. Node is configured and tested	<ol style="list-style-type: none"> 1. Node is assigned to specific gateway as required by network architecture and client requirements 2. Connection type is determined and configured with reference to network architecture and client requirements 3. Node software / hardware is configured as required according to vendor specifications and client's requirements
----------------------------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Nodes	Any device connected to a network. Typically, nodes are thought of as workstations or PCs which have communication capabilities. The TCP/IP term for a node is a 'host'.
Gateway	In this unit, the term gateway is taken to mean the use of inter-networking technologies used to connect a private network to a public network, typically the internet. Some sites may have single or multiple gateways. Multiple gateways can provide load sharing, better performance and fault tolerance. Internet email gateways allow LAN based email systems to connect to the internet. Telephony gateways allow fax/voice/data transmissions over the internet.
Security standards	May include: HB 231:2000 Information security risk management guidelines AS/NZS 4444.1:1999 Information security management - Code of practice for information security management AS/NZS 4444.2:2000 Information security management - Specification for information security management systems
Security protocols	May include: Secure Multipurpose Internet Mail Extensions Secure Socket Layer & Transport Layer Security IP Security Protocol (Domain Name System Security Extensions) (Data Over Cable Service Interface Specification) IEEE 802.11 Protocol standard for secure wireless Local Area Network products. (Point-to-Point Network Tunnelling Protocol) (Secure Electronic Transactions) (Secure Shell)
Internet	Use of the internet may involve transferring text, sound, graphical images and animation.
Internet services	Internet services, or daemons, are designed to permit users on the internet specific types of access to the PCs on which the daemons run. These services include file transfer, remote login and world wide web.
Connections	Dial up, dedicated or proxy connections

UNIT	ICAITS192A Configure an Internet Gateway
-------------	--

E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to connect network hardware devices to an internet gateway and configure and test them	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • the function and features of network gateways; network architecture including the function and features of switches, routers, hubs, bridges as required; network operating systems and desktop operating systems • gateway software eg: Cisco IpeXchange, MS Workgroup Postoffices, Lotus Notes; domain name server (DNS) resolution • Current browser software eg: MS Explorer, Netscape Navigator • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles. • The operation of the world wide web, web pages and directories • Network security • Australian Computer Society Code Of Ethics 	Underpinning skills: <ul style="list-style-type: none"> • installation and configuration of computer hardware and software • use of proprietary software • business analysis skills • communicating with clients

UNIT	ICAITS192A Configure an Internet Gateway
-------------	--

Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • a network with internet access • A PC <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence</p>
Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for ones own outputs in relation to specified quality standards; • and take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT	ICAITS193A Connect a workstation to the internet
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to connect a personal computer to the internet
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Account with an internet service provider (ISP) is created	<ol style="list-style-type: none"> 1. Internet service providers are compared and analysed in relation to cost, connectivity and support. 2. ISP is chosen and account is created with appropriate password 3. Dial up networking connection shortcut is created on the desktop using relevant software
2. Modem is connected and tested	<ol style="list-style-type: none"> 1. Commercially available modems are compared as required for functionality and cost with reference to PC configuration and connectivity 2. Modem is selected based on preferred specifications 3. Modem is installed and tested as required in accordance with vendors instructions and PC operating system
3. Browser software is loaded	<ol style="list-style-type: none"> 1. Browser software is selected and loaded as required 2. Browser software is configured as required by PC configuration and personal preference
4. Personal computer is connected to the internet	<ol style="list-style-type: none"> 1. PC is connected to the internet through dial up networking shortcut 2. Browser is launched to enable access to the internet

UNIT	ICAITS193A Connect a workstation to the internet
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Connectivity	Cable, ADSL, ISDN, fibre optics, twisted pair
Modems	Internal, external, networked
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements
Workplace environment	May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-business solution involving the total organisation or part of the organisation
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
Hardware	Can include IT equipment of all types: <ul style="list-style-type: none"> • Work stations, PCs • Networks • Remote sites • Servers

EVIDENCE GUIDE	
----------------	--

Critical aspects of evidence	Assessment must confirm the ability to connect a workstation to the internet	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • The range of internet service providers (ISPs) and the varying plans and services they offer • Current browser software eg: MS Explorer, Netscape Navigator • The operation of the world wide web, web pages and directories • Australian Computer Society Code Of Ethics 	Underpinning skills: <ul style="list-style-type: none"> • Operating a PC • Key boarding skills

UNIT	ICAITS193A Connect a workstation to the internet
------	--

Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • A PC • An internet connection • A modem <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence</p>
Context	<p>An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/ information.</p> <p>Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate basic operational knowledge in a moderate range of areas; • apply a defined range of skills; apply known solutions to a limited range of predictable problems; • perform a range of tasks where choice between a limited range of options is required; • assess and record information from varied sources; • and take limited responsibility for one's own outputs in work and learning.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAIT194A Ensure basic web site security
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to provide basic website security
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine business security requirements	<ol style="list-style-type: none"> 1. Based on the business intent of the website identify level of security required 2. The need for password protection for all of the site or part of the site is identified 3. Minimum or maximum password solutions are decided on business requirements
2. Ensure web server security	<ol style="list-style-type: none"> 1. Web server password is obscure and non traceable 2. Intrusion detection software is installed and maintained in line with business requirements 3. User accounts have no permissions on the server and is not run as ROOT 4. Interpreters (programs that run CGIs) are not stored in the cgi-bin directory 5. Web forms check data before passing it to the server
3. Ensure protocol security	<ol style="list-style-type: none"> 1. Fixed Internet connection (cable, ADSL, fixed line), IP address are protected 2. Shared network resources are protected from intrusion according to business requirements 3. PC protocols and preferences are secure 4. The TCP/IP Bindings for file and printer sharing is disabled 5. NetBIOS over TCP/IP is disabled

UNIT	ICAITS194A Ensure basic web site security
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Site architecture	Site security is affected by site architecture
System services	telnet, ftp, UUCP, IMAP, sendmail
audits	Log data, UNIX syslog data
firewalls	Hardware appliances, proxy servers, individual PC solution, also: varying functionality including network address translation (NAT) / IP Masquerading, routing to specific machines
Java resources	Applet Password Wizard, Pword, Java Boutique, Java Security Applets
Cgi resources	Cgi Resource Index, QuickPix, Web Authenticate,
Javascript resources	Cut and Paste Javascript, JavaScript Source, Web Abstraction Free Javascript
intrusion detection software	Tripwire
Site security	A number of commercially available software products may be used depending on functionality
Standards	Standards are being introduced on a regular basis it is worthwhile monitoring the following organisations in relation to XML standards Organisation for the Advancement of Structured Information Standards, ISO and IEEE to web-oriented groups like IETF and W3C, IEEE Std. 2001-1999 Web Page Engineering, The Internet Commerce Standards 1.0
Security standards	May include: <ul style="list-style-type: none"> • HB 231:2000 Information security risk management guidelines • AS/NZS 4444.1:1999 Information security management - Code of practice for information security management • AS/NZS 4444.2:2000 Information security management - Specification for information security management systems
Security protocols	May include: <ul style="list-style-type: none"> • Secure Multipurpose Internet Mail Extensions • Secure Socket Layer & Transport Layer Security • IP Security Protocol • (Domain Name System Security Extensions) • (Data Over Cable Service Interface Specification) • IEEE 802.11 Protocol standard for secure wireless Local Area Network products. • (Point-to-Point Network Tunnelling Protocol) • (Secure Electronic Transactions) • (Secure Shell)
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts

UNIT	ICAITS194A Ensure basic web site security
-------------	--

Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
--------------------------	--

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to provide and maintain basic website security		
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.		
Underpinning skills and knowledge	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;"> Underpinning knowledge: <ul style="list-style-type: none"> • firewall functionality • bastion hosts • HTTP daemons • Webserver operating systems • Security patches • Secure sockets layer (SSL) protocol • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles • Australian Computer Society Code Of Ethics </td> <td style="width: 50%; padding: 5px;"> Underpinning skills: <ul style="list-style-type: none"> • Javascript/ Vbscript • HTML </td> </tr> </table>	Underpinning knowledge: <ul style="list-style-type: none"> • firewall functionality • bastion hosts • HTTP daemons • Webserver operating systems • Security patches • Secure sockets layer (SSL) protocol • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles • Australian Computer Society Code Of Ethics 	Underpinning skills: <ul style="list-style-type: none"> • Javascript/ Vbscript • HTML
Underpinning knowledge: <ul style="list-style-type: none"> • firewall functionality • bastion hosts • HTTP daemons • Webserver operating systems • Security patches • Secure sockets layer (SSL) protocol • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles • Australian Computer Society Code Of Ethics 	Underpinning skills: <ul style="list-style-type: none"> • Javascript/ Vbscript • HTML 		
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Web servers • Basic website <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>		

UNIT	ICAITS194A Ensure basic web site security
------	---

Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate different maintenance and monitoring approaches to ensuring security..</p>
Context	<p>Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate some relevant theoretical knowledge; apply a range of well developed skills; • apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; • interpret available information, using discretion and judgement; • take responsibility for ones own outputs in work and learning; • and take limited responsibility for the output of others.

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	1	2	2	2

UNIT	ICAITS195A Ensure dynamic website security
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to ensure and maintain the security of a commercial website
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Risk assessment is completed	<ol style="list-style-type: none"> 1. Functionality and features of the website are identified and confirmed by client as required 2. Security threats are identified with reference to functionality of the site and the enterprise security plan 3. Risk analysis is completed to prioritise security threats and identify system vulnerabilities 4. Resource and budget constraints are identified and validated by client as required 5. Appropriate products, security services and equipment are sourced according to enterprise purchasing policies
2. Operating systems are secured	<ol style="list-style-type: none"> 1. Operating system and cross platform vulnerabilities are identified 2. Appropriate scripting / configuration adjustments are made with reference to functionality of the site and the enterprise security plan 3. Any weaknesses specific to the operating systems are identified and rectified
3. Site server is secured	<ol style="list-style-type: none"> 1. Web server is configured securely with reference to required functionality and the enterprise security plan 2. Relevant CGI/ASP scripting is reviewed and analysed with reference to required functionality and the enterprise security plan 3. Firewalls are installed as required 4. Access control permissions to relevant servers and databases is established

UNIT	
ICAITS195A Ensure dynamic website security	
4. Relevant data transactions are secured	<ol style="list-style-type: none"> 1. Data transactions are identified with reference to functionality and features of website 2. Relevant channel protocols are identified and applied where relevant by requirements 3. Relevant payment systems are installed and configured as required by requirements
5. Security framework is tested, monitored and documented	<ol style="list-style-type: none"> 1. A program of selective independent audits and penetration tests are developed 2. Performance benchmarks are determined 3. Audit and test programs are implemented with results recorded, analysed and reported as required. 4. Security framework changes are made based on test results, if necessary 5. Site security plan is developed with reference to enterprise security plan and client requirements 6. Related policies and procedures are developed and distributed to users as required

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Security features	SSL, S-HTTP, stored account payment systems, stored value payment systems, file access permissions, single stage and dual stage firewalls, encryption, smart cards, digital certificates, authentication and access control, digital signatures, VPN technology, screening routers, packet filters, application proxies, trusted systems with C and B assurance levels, support for generalised security services interfaces, personnel security, trusted hardware and operating systems (OSs) at selective desktops, servers, network points and mainframes, multi platform directory services supporting relevant standards
e-commerce security	Client security, secure transport, web server security, operating system security, data integrity, confidentiality, authentication, non repudiation
Assets	data & information, intellectual property, physical assets, people, customer service / loyalty
System	data bases, applications, servers, operating systems, gateways, application service provider and ISP
Security standards	May include: HB 231:2000 Information security risk management guidelines AS/NZS 4444.1:1999 Information security management - Code of practice for information security management AS/NZS 4444.2:2000 Information security management - Specification for information security management systems

UNIT	ICAITS195A Ensure dynamic website security
-------------	--

Security protocols	May include: Secure Multipurpose Internet Mail Extensions Secure Socket Layer & Transport Layer Security IP Security Protocol (Domain Name System Security Extensions) (Data Over Cable Service Interface Specification) IEEE 802.11 Protocol standard for secure wireless Local Area Network products. (Point-to-Point Network Tunnelling Protocol) (Secure Electronic Transactions) (Secure Shell)
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
Policies	Incident response procedures, network intrusion detection systems, forensic procedures, training and awareness raising policy

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence	Assessment must confirm the ability to identify potential security threats and develop and implement strategies to secure the website
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT

ICAITS195A Ensure dynamic website security

Underpinning skills and knowledge

Underpinning knowledge:

- security threats including vandalism, sabotage, breach of privacy or confidentiality, theft & fraud, violations of data integrity, denial of service
- Organisational issues surrounding security
- function and features of stored value payment systems eg: DigiCash, CyberCoin, Mondex, CAFÉ, Visa Cash
- function and features of common stored account payment systems eg: First Virtual's Internet Payment System, CyberCash's secure internet payment system, Secure Electronic Transactions standard (SET), smart cards
- function and features of generic secure protocols eg: Secure Socket Layer (SSL), Secure Hypertext Transfer Protocol (SHTTP), Secure Multi Purpose Internet Mail Extensions (S/MIME)
- function and features of automated intrusion detection software, function and features of network address translation (NAT) in relation to securing internal IP addresses, buffer overruns and stack smashing with reference to operating system deficiencies, function and features of authentication and access control eg: single factor and two factor authentication, biometric authentication
- the function and features of cryptography including digital signatures and public and private key algorithms, the function and features of CGI scripts, the advantages and disadvantages of using the range of security features, the protocol stack for internet communications, knowledge of physical web server security particularly remote hosts
- Australian Computer Society Code Of Ethics
- Copyright and intellectual property
- National Privacy Principle Guidelines (to be published in October 2001)
- The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000.
- The National Privacy Principles

Underpinning skills:

- Ability to develop enterprise policies and procedures
- Auditing and penetration testing techniques
- Configuring a web server
- ability to identify key sources of information
- ability to understand specification sheets
- ability to accurately summarise and document information
- ability to see the conflicts and integration capabilities between diverse equipment
- ability to organise and assess importance and relevance of product information

UNIT	ICAIT195A Ensure dynamic website security
-------------	--

Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • A dynamic website • Enterprise security plan <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence</p>
Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for ones own outputs in relation to specified quality standards; • and take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	2	3	3	3

UNIT	ICAITS196A Implement secure encryption technologies
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to ensure secure encryption are applied and monitored
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Method(s) of encryption are determined	<ol style="list-style-type: none"> 1. User and enterprise security requirements are determined with reference to enterprise security plan 2. Encryption options are identified and analysed according to user and enterprise requirements 3. Appropriate encryption method(s) are selected based on business needs
2. Encryption method is applied	<ol style="list-style-type: none"> 1. Encryption software / protocols are obtained as required according to business procurement procedures 2. Encryption system is applied to servers and users according to system / product requirements 3. Users are briefed on the encryption system and their responsibilities according to enterprise security plan 4. Access control data is stored as per enterprise / encryption requirements
3. Encryption system is monitored	<ol style="list-style-type: none"> 1. Surveillance analysis on audit logs is performed in accordance with enterprise security plan 2. Encryption system is reviewed according to user and enterprise security requirements 3. Ongoing security is ensured through incident management and reporting according to enterprise security plan

UNIT	ICAITS196A Implement secure encryption technologies
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Servers	<p>One or more servers depending on size and functionality of website and may include:</p> <ul style="list-style-type: none"> • BEA Weblogic Servers, • Apache HTTP Server, • IBM VisualAge and WebSphere, • Microsoft-Internet-Information-Server, Microsoft-IIS, Microsoft-IIS-W, Microsoft-PWS-95, & Microsoft-PWS • Windows 2000 Server, • NetDynamics, • Lotus Domino • Netscape Enterprise Server, Netscape-FastTrack, Netscape-Commerce • Sun Micro Systems iPlanet Web Server, • iPlanet-Enterprise • Sun Micro Systems Java Web Server • Email Servers; • File & Print Servers; • FTP Servers; • Proxy Servers
Assets	data & information, intellectual property, physical assets, people, customer service / loyalty
Documentation and Reporting	<p>Includes maintaining standards of definition, standards of format, user access information. Information should be clear and written in such a way that it will be readily understood by the target audience.</p> <p>Reports meet the specific output requirements and are presented in a logical and accessible manner.</p>
System	data bases, applications, servers, operating systems, gateways, application service provider and ISP

UNIT	ICAITS196A Implement secure encryption technologies
Encryption standards	Symmetric encryption, asymmetric encryption, one way encryption, GnuPG is primarily Unix-based, although a Windows version does exist. PGP has versions for Unix, Windows, and even the Mac.
Security purposes	Authentication, access control, data confidentiality, data integrity, non-repudiation
Encryption software	<ul style="list-style-type: none"> • Authentex DataSafe • BlackBox • Blowfish Advanced 97 • Crypto ActiveX Tool • Distributed Management Systems • PGP 6.0.2
Security standards	<p>May include:</p> <p>HB 231:2000 Information security risk management guidelines</p> <p>AS/NZS 4444.1:1999 Information security management - Code of practice for information security management</p> <p>AS/NZS 4444.2:2000 Information security management - Specification for information security management systems</p>
Security protocols	<p>May include:</p> <p>Secure Multipurpose Internet Mail Extensions</p> <p>Secure Socket Layer & Transport Layer Security</p> <p>IP Security Protocol</p> <p>(Domain Name System Security Extensions)</p> <p>(Data Over Cable Service Interface Specification)</p> <p>IEEE 802.11 Protocol standard for secure wireless Local Area Network products.</p> <p>(Point-to-Point Network Tunnelling Protocol)</p> <p>(Secure Electronic Transactions)</p> <p>(Secure Shell)</p>
VPN Solutions	Complete and dynamic VPN solutions may include strong authentication, strong encryption, remote access integration, secure tunnelling, IP routing, firewalls, scalability and redundancy
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.

UNIT	ICAIT196A Implement secure encryption technologies
-------------	---

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to ensure encryption solutions are implemented and appropriate to the business technology environment and business needs	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • security threats including eavesdropping, data interception, data corruption, data falsification, authentication issues • organisational issues surrounding security • encryption strength • encryption types (public key, secret key, hash key) • the function and features of symmetric encryption, asymmetric encryption and one way encryption • examples of symmetric key encryption eg: DES, Triple DES, Skipjack, IDEA, Blowfish • examples of asymmetric key encryption eg: RSA • Asymmetric key-based algorithms - public key/private key encryption • PKI, PGP - Pretty Good Privacy, GnuPG • examples of one way encryption eg: message digests (MD5, SHA), function and features of timestamps, function and features of digital signatures, replay security, function and features of access control permissions, certificate related infrastructure (certificate authorities, registration authorities, repository services), TCP/IP protocols and applications • Australian Computer Society Code Of Ethics • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • surveillance analysis • implementation of encryption protocols • Implementing LAN/ WLAN, VPN or WAN solutions • Ability to undertake a network security risk assessment • Ability to develop enterprise policies and procedures

UNIT	ICAITS196A Implement secure encryption technologies
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Web servers • Encryption software <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence</p>
Context	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence.</p> <p>Breadth, depth and complexity involving analysis, diagnosis, design, planning, execution and evaluation across a broad range of technical and /or management functions including development of new criteria or applications or knowledge or procedures.</p> <p>The application of a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts in relation to either varied or highly specific functions. Contribution to the development of a broad plan, budget or strategy is involved and accountability and responsibility for self and others in achieving the outcomes is involved.</p> <p>Applications involve significant judgement in planning, design, technical or leadership/ guidance functions related to products, services, operations or procedures.</p> <p>The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of specialised knowledge with depth in some areas; • analyse, diagnose, design and execute judgements across a broad range of technical or management functions; • demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills • generate ideas through the analysis of information and concepts at an abstract level; • demonstrate accountability for personal outputs within broad parameters; and • demonstrate accountability for group outcomes within broad parameters.

UNIT

ICAITS196A Implement secure encryption technologies

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT	ICAITS197A Install and maintain valid authentication processes
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to develop and implement an authentication process
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Method(s) of authentication is determined	<ol style="list-style-type: none"> 1. User and enterprise security requirements are determined with reference to enterprise security plan 2. Authentication options are identified and analysed according to user and enterprise requirements 3. Appropriate authentication and authorisation processes are selected
2. Authentication software /tools are configured	<ol style="list-style-type: none"> 1. An authentication realm is created and reused as required to protect different areas of the server 2. Users and authorisation rules are added to the new realm according to business needs 3. The user attributes are described and the user attributes setup 4. An authentication filter on the appropriate on the server is set up 5. The authentication filter and authorisation parameters are setup and committed according to business requirements
3. Authentication method is applied	<ol style="list-style-type: none"> 1. Authentication protocols / software are obtained or developed as required 2. Related policies and procedures are developed and distributed to users according to business need 3. Users are briefed on the authentication system and their responsibilities according to enterprise security plan 4. Authentication system is applied to network and users according to system / product requirements 5. Permission and configuration information is recorded and stored in a secure central location

UNIT	ICAITS197A Install and maintain valid authentication processes	
4. Authentication system is monitored	1.	Authentication system is reviewed according to user and enterprise security and quality of service (QOS) requirements
	2.	Ongoing security is ensured through incident management and reporting according to enterprise security plan

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

System	data bases, applications, servers, operating systems, gateways, application service provider and ISP
Authentication software	SoftID, SecurID Card, SecurID Key Fob, SecurID token, Resnet, The Net, ITSC, XVSS Authentication Software, RADIUS, Funk, OCSG/KERBEROS
Authentication processes	token cards, digital certificates, password protocols, authentication adaptors, biometric authentication adaptors
Servers	<p>One or more servers depending on size and functionality of website and may include:</p> <ul style="list-style-type: none"> • BEA Weblogic Servers, • Apache HTTP Server, • IBM VisualAge and WebSphere, • Microsoft-Internet-Information-Server, Microsoft-IIS, Microsoft-IIS-W, Microsoft-PWS-95, & Microsoft-PWS • Windows 2000 Server, • NetDynamics, • Lotus Domino • Netscape Enterprise Server, Netscape-FastTrack, Netscape-Commerce • Sun Micro Systems iPlanet Web Server, • iPlanet-Enterprise • Sun Micro Systems Java Web Server • Email Servers; • File & Print Servers; • FTP Servers; • Proxy Servers

UNIT	
ICAITS197A	Install and maintain valid authentication processes
Documentation and Reporting	Includes maintaining standards of definition, standards of format, user access information. Information should be clear and written in such a way that it will be readily understood by the target audience.
Security standards	<p>Reports meet the specific output requirements and are presented in a logical and accessible manner.</p> <p>May include:</p> <ul style="list-style-type: none"> HB 231:2000 Information security risk management guidelines AS/NZS 4444.1:1999 Information security management - Code of practice for information security management AS/NZS 4444.2:2000 Information security management - Specification for information security management systems
Security protocols	<p>May include:</p> <ul style="list-style-type: none"> Secure Multipurpose Internet Mail Extensions Secure Socket Layer & Transport Layer Security IP Security Protocol (Domain Name System Security Extensions) (Data Over Cable Service Interface Specification) IEEE 802.11 Protocol standard for secure wireless Local Area Network products. (Point-to-Point Network Tunnelling Protocol) (Secure Electronic Transactions) (Secure Shell)
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
Authentication scope	This unit of competence is detailing competence for single-factor authentication schemes, two factor authentication scheme, but not biometric authentication schemes.
EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to ensure authentications solutions are deployed and appropriate to the business technology environment and business needs
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITS197A Install and maintain valid authentication processes	
<p>Underpinning skills and knowledge</p>	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Organisational issues surrounding security • The function and operation of virtual private networking (VPN) concepts • Common VPN issues including quality of service considerations (QOS), bandwidth, dynamic security environment • The function and operation of authentication • The features of common password protocols eg: password authentication protocol (PAP), challenge handshake authentication protocol (CHAP), challenge phrases, RADIUS authentication • Features and function of token cards • Features and function of authentication adaptors • Features and function of biometric authentication adaptors • Features and function of digital certificates including eg: VeriSign, X.509, SSL • Resource accounting through authentication • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles • Australian Computer Society Code Of Ethics 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Ability to develop enterprise policies and procedures • Ability to analyse enterprise security requirements and propose solutions • Scripting • Ability to liaise with vendors / service providers as required • Incident management
<p>Resources</p>	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Web servers • Encryption software <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>	

UNIT	ICAITS197A Install and maintain valid authentication processes
-------------	---

Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence</p>
Context	<p>Breadth, depth and complexity involving analysis, diagnosis, design, planning, execution and evaluation across a broad range of technical and /or management functions including development of new criteria or applications or knowledge or procedures.</p> <p>The application of a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts in relation to either varied or highly specific functions. Contribution to the development of a broad plan, budget or strategy is involved and accountability and responsibility for self and others in achieving the outcomes is involved.</p> <p>Applications involve significant judgement in planning, design, technical or leadership/ guidance functions related to products, services, operations or procedures.</p> <p>The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of specialised knowledge with depth in some areas; • analyse, diagnose, design and execute judgements across a broad range of technical or management functions; • demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills • generate ideas through the analysis of information and concepts at an abstract level; • demonstrate accountability for personal outputs within broad parameters; and • demonstrate accountability for group outcomes within broad parameters.

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT	ICAITS198A Develop guidelines for updating and loading information to a web site
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency to support the effective operation of the web site by establishing the policies and procedures required to change web site content.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Develop site policies	<ol style="list-style-type: none"> 1. Policies on acceptable usage, security, privacy and copyright issues based on the technical security and privacy requirements are developed and disseminated 2. Roles and responsibilities for updating, and loading content and removing redundant information are developed and disseminated. 3. Content able to be updated and loaded is documented and disseminated. 4. The processes and procedures to update, or load or remove content on the site is established, documented and disseminated. 5. Automatic and or routine updating and archiving procedures are implemented.
2. Establish updating and loading procedures	<ol style="list-style-type: none"> 1. Directory space to update and load new site content is allocated and made available to contributors. 2. Authoring guides and resources are identified, documented and disseminated based on Cascading Style Sheet (CSS) and business style guides 3. New content templates to be applied by authors are developed and made available for use based on Cascading Style Sheet (CSS) parameters. 4. Server permissions are allocated and monitored 5. Preferred File Transfer Protocol (FTP) client is identified based on best fit with technical environment and made available for use 6. FTP client is customised to meet user requirements 7. Authoring support tools, such as help files and links, are identified and developed as necessary and disseminated

UNIT	ICAITS198A Develop guidelines for updating and loading information to a web site
------	--

3. Guidelines Documented	<ol style="list-style-type: none"> 1. Guidelines for loading information take into consideration security and privacy requirements 2. Links to recommended support tools are documented and made available 3. Details of recent updating and loading of information, such as the time, the author, location and title of new files is automated and documented on the site.
--------------------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Site architecture	Site security is affected by site architecture
Firewalls	Hardware appliances, proxy servers, individual PC solution, also: varying functionality including network address translation (NAT) / IP Masquerading, routing to specific machines
Site Design Specifications	Design specification documentation that has detailed the purpose, strategy and maintenance of the web has been provided to candidates. The candidate is to be able to determine the broad site policies and specific procedures to update the site and load new content.
Software Requirements	A range of possible software choices to disseminate the guidelines is available.
Hardware	Can include IT equipment of all types; <ul style="list-style-type: none"> • Work stations, PCs • Networks • Remote sites • Servers
Operating System	Win 95/98/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC, VMS, Mac OSX, Linux, Netware
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.

UNIT	ICAITS198A Develop guidelines for updating and loading information to a web site
-------------	--

File Transfer Protocol clients	<ul style="list-style-type: none"> • AxY FTP for Windows, Linux and Unix • Cftp for Unix • Curl for Unix supports FTP, HTTP, Telnet, etc • GFTP with GUI for Unix supports FTP, HTTP and SSH • Lftp command line FTP for Solaris, IRIX, HP-UX, Digital UNIX and Linux • Lukemftp command-line FTP supports FTP and HTTP URLs • NcFTP Client command-line FTP and HTTP URLs for Solaris, FreeBSD, AIX and Linux
---------------------------------------	---

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence	<p>Assessment must confirm the ability to develop uploading and removal procedures that reflect the strategic intent of the site whilst maintaining the site security and privacy standards.</p> <p>The procedures will include content that is updated regularly, automatically or by authors. Updating, loading and removal of redundant content includes the requirement to advise users of old data being archived and new content that has been posted.</p>	
Interdependent assessment of units	<p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.</p>	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Website architecture and business process design with an understanding how e-business sites fit into corporate strategy • Maintaining and administering a site • Policy writing and dissemination and documenting technical specification • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles • Internet protocols • Security issues – denial of service, viruses, hackers • Australian Computer Society Code Of Ethics 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Web site analysis • Web site publishing • Archiving • File transfer • Directory maintenance • Information architecture • Use site design software and hardware

UNIT	ICAITS198A Develop guidelines for updating and loading information to a web site
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • servers • E-business website • FTP software <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competency to determine, write and disseminate the appropriate policy and procedural guideline.</p>
Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for ones own outputs in relation to specified quality standards; • and take limited responsibility for the quantity and quality of the output of others.

UNIT	ICAITS198A Develop guidelines for updating and loading information to a web site
-------------	--

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	3	2	3	2	2	3

UNIT	ICAITS199A Manage e-business websites
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to maintain and manage e-business websites and the associated servers
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Maintain site and contents	<ol style="list-style-type: none"> 1. Site analysis software are selected with reference to organisational requirements and website architecture 2. Site summary reports are generated and analysed 3. Links are checked for functionality and ongoing relevance 4. Web pages are modified as determined by analysis of site summary report 5. Database is maintained and debugged according to site and information requirements
2. Maintain security of the site	<ol style="list-style-type: none"> 1. Control proactive information security program as required by security plan 2. Site security is tested and evaluated according to organisational requirements and customer expectations 3. Site security is maintained as a result of program findings and against security performance standards
3. Monitor site performance	<ol style="list-style-type: none"> 1. Server analysis tools are selected with reference to organisational requirements and a range of functionalities tested 2. Site load metrics are identified and performance indicators determined in line with organisational requirements 3. Site server performance is measured against business requirements 4. Options for performance optimisation are identified 5. Site server performance is optimised to meet performance standards

UNIT	ICAITS199A Manage e-business websites
-------------	---

4. Undertake capacity planning	<ol style="list-style-type: none"> 1. Analyse trends to determine future peak volumes based on business strategies and expectations 2. Set performance objectives in future scenario for each relevant load metric 3. Model infrastructure alternatives for load patterns 4. Determine best option of chosen future scenario based on current and future business needs
--------------------------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Servers	<p>One or more servers depending on size and functionality of website and may include:</p> <ul style="list-style-type: none"> • BEA Weblogic Servers, • Apache HTTP Server, • IBM VisualAge and WebSphere, • Microsoft-Internet-Information-Server, Microsoft-IIS, Microsoft-IIS-W, Microsoft-PWS-95, & Microsoft-PWS • Windows 2000 Server, • NetDynamics, • Lotus Domino • Netscape Enterprise Server, Netscape-FastTrack, Netscape-Commerce • Sun Micro Systems iPlanet Web Server, • iPlanet-Enterprise • Sun Micro Systems Java Web Server • Email Servers; • File & Print Servers; • FTP Servers; • Proxy Servers
----------------	--

UNIT	ICAITS199A Manage e-business websites
Server analysis tools	<p>A number of commercially available software products may be used depending on functionality for example:</p> <ul style="list-style-type: none"> • Apache Jserv, • Apache JSSI, • Apache Jmeter,
Documentation and Reporting	<p>Includes maintaining standards of definition, standards of format, user access information. Information should be clear and written in such a way that it will be readily understood by the target audience. Reports meet the specific output requirements and are presented in a logical and accessible manner.</p>
Web development standards	<p>Web Content Accessibility Guidelines 1.0 (WCAG)</p> <p>Authoring Tool Accessibility Guidelines 1.0 (ATAG)</p> <p>User Agent Accessibility Guidelines 1.0 (UAAG)</p>
Site analysis software	<p>A number of commercially available software products may be used depending on functionality</p> <ul style="list-style-type: none"> • WebTrends Log Analyzer • Linkbot Pro • InContext WebAnalyzer • CyberSpyder • AccessWatch • WebCounter
Server functionality	<p>Traffic capabilities, processor and disk utilisation,</p>
Security standards	<p>May include:</p> <p>HB 231:2000 Information security risk management guidelines</p> <p>AS/NZS 4444.1:1999 Information security management - Code of practice for information security management</p> <p>AS/NZS 4444.2:2000 Information security management - Specification for information security management systems</p>
Security protocols	<p>May include:</p> <p>Secure Multipurpose Internet Mail Extensions</p> <p>Secure Socket Layer & Transport Layer Security</p> <p>IP Security Protocol</p> <p>(Domain Name System Security Extensions)</p> <p>(Data Over Cable Service Interface Specification)</p> <p>IEEE 802.11 Protocol standard for secure wireless Local Area Network products.</p> <p>(Point-to-Point Network Tunnelling Protocol)</p> <p>(Secure Electronic Transactions)</p> <p>(Secure Shell)</p>

UNIT	ICAITS199A Manage e-business websites
Standards	Standards are being introduced on a regular basis it is worthwhile monitoring the following organisations in relation to XML standards Organisation for the Advancement of Structured Information Standards, ISO and IEEE to web-oriented groups like IETF and W3C, IEEE Std. 2001-1999 Web Page Engineering, The Internet Commerce Standards 1.0
Operating systems	<ul style="list-style-type: none"> • Solaris • NT • FreeBSD • Linux • Windows 2000 • HP Unix • AIX • AS400 • OS/2 • CompacTru64 • MacOS • Netware • IRIX
Maintenance frequency	Determined by organisational requirements
Site functionality	Volumes (hits, page views, transactions, searches), arrival rates, response times by class, user session time, number of concurrent users,
Site security	A number of commercially available software products may be used depending on functionality
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.

UNIT

ICAITS199A Manage e-business websites

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to maintain consistent and constantly performing website that meets the stated business strategies and business directions

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to.

Underpinning skills and knowledge**Underpinning knowledge:**

- Website architecture
- Website security issues
- Queuing systems
- SGML and the associated standards
- Bottlenecks and their methods of correction
- Workload metrics
- User request classes
- Electronic Commerce Modelling Language
- Copyright and intellectual property
- National Privacy Principle Guidelines (to be published in October 2001)
- The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000.
- The National Privacy Principles
- Australian Computer Society Code Of Ethics

Underpinning skills:

- The use of a current site server software
- The use of a current web server log file analysis software
- The use of a current traffic tracking software
- The use of a current forecasting methodology for identifying traffic peaks
- Maintaining firewalls
- Maintaining VPN Gateways
- RFPs

UNIT	ICAITS199A Manage e-business websites
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Site servers and web servers • E-business website • Site servers software • Analysis software • Requirements documentation • Business planning documentation <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate different maintenance and monitoring approaches, i.e. tuning performance and ensuring security.</p>
Context	<p>Breadth, depth and complexity involving analysis, diagnosis, design, planning, execution and evaluation across a broad range of technical and /or management functions including development of new criteria or applications or knowledge or procedures.</p> <p>The application of a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts in relation to either varied or highly specific functions. Contribution to the development of a broad plan, budget or strategy is involved and accountability and responsibility for self and others in achieving the outcomes is involved.</p> <p>Applications involve significant judgement in planning, design, technical or leadership/ guidance functions related to products, services, operations or procedures.</p> <p>The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of specialised knowledge with depth in some areas; • analyse, diagnose, design and execute judgements across a broad range of technical or management functions; • demonstrate a command of wide ranging, highly specialised technical, creative or conceptual skills • generate ideas through the analysis of information and concepts at an abstract level; • demonstrate accountability for personal outputs within broad parameters; and • demonstrate accountability for group outcomes within broad parameters.

UNIT

ICAITS199A Manage e-business websites**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT	ICAITS200A Monitor traffic and compile specified site traffic reports
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to monitor site traffic and compile traffic reports as specified
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Web traffic tools are selected	<ol style="list-style-type: none"> 1. Site analysis software is identified and analysed with reference to organisational requirements and website architecture 2. Site analysis software is chosen and installed according to vendor requirements or ISP services are chosen 3. Report options are identified with reference to organisational requirements and website architecture 4. Program of monitoring is developed
2. Traffic is monitored	<ol style="list-style-type: none"> 1. Required traffic reports are specified according to information requirements 2. Required traffic reports are generated 3. Reports are analysed to improve server / site performance 4. Forecasting methodologies are applied to identify traffic peaks
3. Recommendations for improvements are made	<ol style="list-style-type: none"> 1. Recommendations for change / replacement of hardware and or software are made 2. Relevant changes are made as directed 3. Monitoring program is continued as required

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Site functionality	Volumes (hits, page views, transactions, searches), arrival rates, response times by class, user session time, number of concurrent users,
Traffic reports	<ul style="list-style-type: none"> • Identify new business from website • High Traffic but no sales • Monitor the effectiveness of online links or ads from other websites • Monitor the effectiveness of website ranking improvements • Demographic information to inform you where to focus ad dollars

UNIT	ICAITS200A Monitor traffic and compile specified site traffic reports
-------------	--

E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
Traffic analysis software	<ul style="list-style-type: none"> • Hit List • Mercury Interactive • Avesta • Segue

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to monitor site traffic and compile traffic reports as specified	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • queues and bottlenecks • server design and functionality • features and functionality of network device drivers • features and functionality of network operating systems • Website architecture • Website security issues • Queuing systems • Workload metrics • features and functionality of commercially available log file analysis software eg: GetStats, AccessWatch, WebReporter, Accrue Insight, RefStats, Web Trends • features and functionality of commercially available traffic tracking software eg: I/PRO, Guestbook • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles • Australian Computer Society Code Of Ethics 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • The use of a current web server log file analysis software • The use of a current traffic tracking software • The use of a current forecasting methodology for identifying traffic peaks

UNIT	ICAITS200A Monitor traffic and compile specified site traffic reports
-------------	--

Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Web servers • E-business website • Analysis software <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence.</p>
Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for ones own outputs in relation to specified quality standards; • and take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	2	2	2	3

UNIT	ICAITS201A Transfer content to a web site using commercial applications
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to transfer content from a remote location to or from a web server using a range of commercial information technology products in order to publish the information on the web site.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Configure the File Transfer Protocol client	<ol style="list-style-type: none"> 1. Download or obtain a compatible FTP client for your technical environment 2. User details such as; User ID, password and Host Name/ ID are entered into the correct profile fields to create a permanent profile 3. Settings such as auto-detect, save profile and password are chosen depending on company security and privacy requirements and guidelines 4. Test the configuration by connecting to the web server, if necessary review the settings
2. Prepare content for transfer	<ol style="list-style-type: none"> 1. Received content is prepared and backed up on the local computer or server 2. Files are acceptable to operating system 3. Appropriate FTP client software is identified based on technical environment 4. Private or autonomous host location is identified
3. Establish connection to server	<ol style="list-style-type: none"> 1. Log into server site using either administrative or anonymous FTP protocol. 2. Proceed through security procedures based on organisational processes 3. Transfer software is launched and destination directory navigated to either graphically or through command line 4. Proper permissions allow destination directory location to be identified

UNIT	ICAITS201A Transfer content to a web site using commercial applications
-------------	---

4. Transfer files	<ol style="list-style-type: none"> 1. Files to be transferred (uploaded or downloaded) are selected and correct mode (ASCII or Binary) is chosen 2. Anti-viruses software is run on downloaded files 3. Move, rename, copy, and delete files on the server as necessary and as permissions allow 4. Files are stored and ordered according user needs and file extensions 5. Appropriate steps are completed for downloaded files such as; translating, decompressing, or un-archiving the files for use 6. Connection is closed
----------------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

File Transfer Protocol clients	<p>Variables may include, but are not limited to, a wide variety of commercial available tools such as:</p> <ul style="list-style-type: none"> • AxY FTP for Windows, Linux and Unix • Cftp for Unix • Curl for Unix supports FTP, HTTP, Telnet, etc • GFTP with GUI for Unix supports FTP, HTTP and SSH • Lftp command line FTP for Solaris, IRIX, HP-UX, Digital UNIX and Linux • Lukemftp command-line FTP supports FTP and HTTP URLs • NcFTP Client command-line FTP and HTTP URLs for Solaris, FreeBSD, AIX and Linux • MS Frontpage, • Win 95/NT File sharing, • MS Internet Explorer graphical FTP,
E-commerce models	<p>Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models</p>
E-Business	<p>Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts</p>
Knowledge Economy	<p>Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.</p>
Hardware	<p>Can include IT equipment of all types;</p> <ul style="list-style-type: none"> • Work stations, PCs • Networks • Remote sites • Servers
Operating System	<p>Win 95/98/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC, VMS, Mac OSX, Linux, Netware</p>

UNIT

ICAITS201A Transfer content to a web site using commercial applications

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to configure and FTP client, prepare content to be transferred, connect to the server and transfer content.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • Web site architecture • Server operating systems • Server access security procedures • FTP software protocols • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles • Internet protocols • Security issues – denial of service, viruses, hackers • Australian Computer Society Code Of Ethics 	Underpinning skills: <ul style="list-style-type: none"> • Web site analysis • Web site publishing • File transfer • Directory maintenance • Information architecture • Connecting to remote servers • File back up
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Webservers • E-business website • FTP or file transfer client software • Server security password <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate the competence to prepare files, connect to a remote server and to transfer files from the workstation to a remote server.</p>	
Context	<p>Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate some relevant theoretical knowledge; apply a range of well developed skills; • apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; • interpret available information, using discretion and judgement; • take responsibility for ones own outputs in work and learning; • and take limited responsibility for the output of others. 	

UNIT

ICAITS201A Transfer content to a web site using commercial applications

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	2	1	1	2	2

UNIT	ICAITS202A Ensure privacy for users
-------------	---

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to ensure that users personal information is only used or disclosed for the purposes that its collection was undertaken and that all reasonable steps are taken to maintain the privacy and confidentiality of information that has been collected, used and or disclosed. This competency unit does not in any way replace the need for organisations and individuals to fully apply the Commonwealth Privacy Act 1988, including the Privacy Amendment (Private Sector) Act 2000 which takes effect as of 21 December 2001.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation. This competency applies in conjunction with the need to implement security procedures to protect the integrity of systems or media where users private information is maintained.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Apply privacy legislation	<ol style="list-style-type: none"> 1. The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000 and takes effect as of 21 December 2001 has been distributed and made available. 2. Elements of the Act, which are applicable to the e-business model being developed, are identified and plans prepared to meet its requirements. 3. Clear and consistent Privacy Policy and guidelines are obtained and applied to protect user privacy. 4. Privacy policy and guidelines are prominently published on websites and intranets, and made available to all people, including users who want, or need to view them.

UNIT	ICAITS202A Ensure privacy for users	
<p>2. Apply the 10 National Privacy Principles to websites.</p>	<ol style="list-style-type: none"> 1. Relevant data is collected and the collection, the individual is fully informed of who is collecting the information, why it is being collected, and to which organisations it is normally disclosed method is legal. 2. Personal user information is only used or disclosed for the primary purpose for which it was collected unless the consent of the individual, about whom the records are kept, has been obtained. 3. Reasonable steps are taken to ensure that personal information that is collected is accurate, complete and up to date. 4. Procedures are developed to protect personal information from misuse, unauthorised access or disclosure and information that is no longer needed is effectively destroyed or de-identified. 5. A privacy policy is published and available to users. 6. Procedures are established to ensure individual users can, with certain exceptions, gain access to and up date all personal information held on them upon request. 7. Procedures are in place to protect identifiers of individuals that have been assigned by a Commonwealth government agency or organisation and the identifier is not disclosed to other parties unless it is necessary to fulfil its obligations to the agency. 8. Wherever lawful and practicable individuals must have the option of not identifying themselves when entering transactions with the organisation. 9. Information processes ensure Transborder data flow meets legislative requirements. 10. Implemented processes do not collect sensitive information on individuals unless the individuals have consented, the collection is required by law, the collection prevents or lessens imminent threat to life or health of an individual or if the non profit collection guidelines are met. 	
<p>3. Limit access to equipment that provides access to users personal information</p>	<ol style="list-style-type: none"> 1. Guidelines and procedures to limit the number of personnel who have access to equipment that stores, transmits or displays personal information are developed and applied. 2. The technical environment is configured to protect privacy 3. Records are locked in secure storage facilities. 4. Screens and printers are positioned to negate unintended observation of private personal information. 	
<p>4. Data storage and handling procedures are developed</p>	<ol style="list-style-type: none"> 1. Sensitive data that is stored is to be encrypted and authentication procedures employed to ensure that only authorised people have access to the information. 2. Policy relating to direct copying of files is distributed and made available 3. Centrally stored data is always erased before being reassigned or deleted. 4. Secure disposal of unwanted but useable storage media and records is applied. 5. Storage media is always completely erased before selling or disposing. 6. Data archiving periods and conditions are clearly defined. 	

UNIT	ICAITS202A Ensure privacy for users
------	-------------------------------------

5. Data being communicated over external networks is protected.	<ol style="list-style-type: none"> 1. All sensitive information being transmitted is encrypted 2. Rigorous encryption key management procedures are applied. 3. Access to network management functions is restricted. 4. Attachments of devices to the network are controlled and restricted if necessary. 5. Inbuilt security controls and message labels in software are used as necessary.
---	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Documentation Requirements	<p>National Privacy Principle Guidelines (to be published in October 2001)</p> <p>Health Privacy Guidelines (to be published in November 2001)</p> <p>Code Development Guidelines (to be published in August 2001)</p> <p>Note: all codes currently available in draft format at www.privacy.gov.au/rfc/index.html</p> <p>Business Privacy Policy and Guidelines if already developed. The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. The National Privacy Principles.</p>
Software	<p>A large range of commercially available software is available to assist in ensuring the privacy of users. A list of some appropriate software includes: Internet Watch, SSH, AD-aware, Protector, Anonymous Adviser, Secure, Thundersafe, nCode, Gate Keeper, QN Password, CS Password, PassGen, Hypersafe 2000, Information Keeper, Watchman, Device Lock, Computer Control, Black Ice Defender, ShredX, SoftByteSecurity Pass, Cryptware 2000, GUIDESX, AdvaCrypt Suite, LK Encoder, Interscope Black Box, Crypto Mite.</p> <p>Please note that these are aides only, and use does not guarantee full compliance with the Privacy Act 1988.</p>
Hardware	<p>Can include IT equipment of all types;</p> <ul style="list-style-type: none"> • Work stations, PCs • Networks • Remote sites • Servers • Tempest measurement equipment such as ECM and ESD detection devices • Tempest suppression and shielding equipment
Operating System	<p>Win 95/98/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC, VMS, Mac OSX, Linux, Netware</p>
E-commerce models	<p>Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models</p>

UNIT	ICAITS202A Ensure privacy for users
-------------	--

E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
National Privacy Principles	Collection, Use and Disclosure, Data Quality, Data Security, Openness, Access and Correction, Identifiers, Anonymity, Transborder Data Flow, Sensitive Information,
Privacy policy	Privacy policies includes information on the types of information held, the purpose of holding the information, how it is collected, and the approved uses and disclosure of information held.

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability of the candidate to implement and maintain the legal requirements of Privacy Legislation through the development of mechanisms and procedures and apply user privacy protection measures consistent with the law and the National Privacy Principles.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Web site architecture • Server operating systems • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles. • Server access security procedures • Storage Media security systems • Project management • Stakeholder communication • Legal Requirements • Australian Computer Society Code Of Ethics 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Web site analysis • Secure File transfer • Information architecture • Version back up and storage • Secure Data Base Management • Office Space Management • Network Management

UNIT	ICAITS202A Ensure privacy for users
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • E-business website • Technical architecture documentation for reviewing configuration of technical environment <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence in ensuring that users privacy is protected through site design, developing and applying guidelines, policies and procedures that meet the minimum standard required by Federal and other Privacy Legislation.</p>
Context	<p>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 co-ordination.</p> <p>The 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.</p> <p>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 co-ordination may be involved.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • 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; • and take limited responsibility for the achievement of group outcomes.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT	ICAITS203A Choose a web hosting service
-------------	--

FIELD	Support
--------------	----------------

DESCRIPTION	This unit defines the competency required to evaluate and then choose the best hosting service for the current and future business needs
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine adequate speed and robustness of internet connection	<ol style="list-style-type: none"> 1. Web hosting service has several links to backbone networks and are physically redundant 2. Web hosting services has plenty of pipe capacity to cover partial outages 3. The tier level of web hosting service is considered against criticality of 7 by 24
2. Ensure guarantee of permanent on-line presence	<ol style="list-style-type: none"> 1. Web hosting service has systems in place to monitor server performance and availability 2. Escalation procedures and performance standards are negotiated and clearly articulated 3. Security and backup procedures are articulated and meet business needs
3. Web host meets technical requirements	<ol style="list-style-type: none"> 1. Operating system supports the preferred business development software, applications, extensions and databases 2. Web host servers support dynamic websites using the preferred business technologies 3. Web host provides current and future disk space requirements 4. Site analysis reports are available and flexible enough to meet business needs 5. Security systems and payment technologies meet business and customers expectations and requirements
4. Web host service meets business requirements	<ol style="list-style-type: none"> 1. Pricing plans for web hosting, data transfer, level of service and functionality meet business needs 2. Email and mailing list services are flexible enough to meet current and future business needs 3. Additional design development services are available if required by the business 4. Support services standards meet the needs of the business

UNIT	ICAITS203A Choose a web hosting service
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Backbone Networks	Backbone means the high-traffic-density connectivity portion of any communications network. Backbone networks include Telstra, Optus, OzEmail, AAPT
Servers	Servers depending on size and functionality may include: <ul style="list-style-type: none"> • BEA Weblogic Servers, • Apache HTTP Server, • IBM VisualAge and WebSphere, • Microsoft-Internet-Information-Server, Microsoft-IIS, Microsoft-IIS-W, Microsoft-PWS-95, & Microsoft-PWS • Windows 2000 Server, • NetDynamics, • Lotus Domino • Netscape Enterprise Server, Netscape-FastTrack, Netscape-Commerce • Sun Micro Systems iPlanet Web Server, • iPlanet-Enterprise • Sun Micro Systems Java Web Server • Email Servers; • FTP Servers
Operating systems	Solaris NT FreeBSD Linux Windows 2000 HP Unix AIX AS400 OS/2 CompacTru64 Netware IRIX
Databases	<ul style="list-style-type: none"> • may include but are not limited to • Oracle, • Sybase, • Microsoft SQL Server, • Ingres, • DB2, • Informix
Scripting	Perl, VBscript, Javascript
Security technologies	Secure Socket Layer (SSL), PKI, Payment Gateways

UNIT	
	ICAIT203A Choose a web hosting service
Website analysis tools	<p>Log file analysis tools for example, Hitlist, cj1stat and wwwstat</p> <p>Dynamic analysis tools for example, Aria and Insight</p> <p>Advertising analysis tools for example, NetGravity and Accipiter</p> <p>Website analysis tools should be able to provide; realtime report access, datadrill down, flexible formats, scalability and ease of use. Eventually data synthesis will be able available</p>
Basic E-business software packages	E-Merchant, INETstore, Intershop, Store Creator
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
Hosting Plans	Hosting plans offer many different options: various amounts of disk storage for your site, and extra features such as CGI access, scripts, POP accounts, dedicated servers, E-Business hosting, co-location of servers

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to choose a web hosting service that meets the current and future needs of the business		
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.		
Underpinning skills and knowledge	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Understanding of security internet issues • Understanding of server technologies • Understanding of operating systems used by ISPs • Customer and business liaison • User and business performance expectations • Applying performance benchmarks • Australian Computer Society Code Of Ethics </td> <td style="width: 50%; vertical-align: top; border-left: 1px solid black; padding-left: 10px;"> <p>Underpinning skills:</p> <ul style="list-style-type: none"> • Negotiation skills • Analytical skills in relation to determining the best pricing plan for the business • Forecasting skills in relation to identifying future business needs </td> </tr> </table>	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Understanding of security internet issues • Understanding of server technologies • Understanding of operating systems used by ISPs • Customer and business liaison • User and business performance expectations • Applying performance benchmarks • Australian Computer Society Code Of Ethics 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Negotiation skills • Analytical skills in relation to determining the best pricing plan for the business • Forecasting skills in relation to identifying future business needs
<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Understanding of security internet issues • Understanding of server technologies • Understanding of operating systems used by ISPs • Customer and business liaison • User and business performance expectations • Applying performance benchmarks • Australian Computer Society Code Of Ethics 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Negotiation skills • Analytical skills in relation to determining the best pricing plan for the business • Forecasting skills in relation to identifying future business needs 		

UNIT

ICAITS203A Choose a web hosting service

Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • A number of different pricing/ hosting plans and service agreements • Technology profiles of ISPs • A business plan outlining future directions for the business <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence</p>
Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for ones own outputs in relation to specified quality standards; • and take limited responsibility for the quantity and quality of the output of others.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

8. Use IT Solutions

ICAITU004C	Apply Occupational Health and Safety Procedures.....	8-3
ICAITU005C	Operate computer hardware.....	8-6
ICAITU006C	Operate computing packages.....	8-9
ICAITU007B	Maintain equipment and consumables.....	8-12
ICAITU012C	Design organisational documents using computing packages.....	8-14
ICAITU013C	Integrate commercial computing packages.....	8-17
ICAITU018C	Develop macros and templates for clients using standard products.....	8-20
ICAITU019C	Migrate to new technology.....	8-23
ICAITU028C	Customise packaged software applications for clients.....	8-27
ICAITU126B	Use advanced features of computer applications.....	8-31
ICAITU127B	Support system software.....	8-34
ICAITU128A	Operate a personal computer.....	8-39
ICAITU129A	Operate a word processing application.....	8-42
ICAITU130A	Operate a spreadsheet application.....	8-46
ICAITU131A	Operate database application.....	8-50
ICAITU132A	Operate a presentation package.....	8-54
ICAITU133A	Send and retrieve information over the Internet using browsers and email.....	8-58
ICPMM11bA	Identify components of multimedia.....	8-62
ICPMM13cA	Author a multimedia sequence.....	8-65
ICPMM15dA	Develop a multimedia script.....	8-68
ICPMM21cA	Capture a digital image.....	8-71
ICPMM41cA	Incorporate text into multimedia presentations.....	8-74
ICPMM42cA	Incorporate 2D graphics into multimedia presentations.....	8-77
ICPMM43cA	Incorporate digital photography into multimedia presentations.....	8-81
ICPMM44cA	Incorporate audio into multimedia presentations.....	8-84
ICPMM45cA	Incorporate animation into multimedia presentations.....	8-88
ICPMM46cA	Incorporate video into multimedia presentations.....	8-91
ICPMM47dA	Incorporate 3D modelling into multimedia presentations.....	8-94
ICPMM61dA	Prepare multimedia for different platforms.....	8-97
ICPMM63bA	Access the Internet.....	8-99
ICPMM65dA	Create web pages with multimedia.....	8-101
ICPMM67dA	Plan interface design.....	8-104
ICPMM81eA	Manage multimedia production.....	8-107
ICPMM82eA	Manage multimedia projects.....	8-110
ICPPP11cA	Develop a detailed design concept.....	8-114
ICPPP11dA	Undertake a complex design brief.....	8-117
ICTTC200A	Use telecommunications technology in receiving/making calls in the call centre	

	environment	8-121
ICTTC201A	Use basic computer technology to process enterprise and customer data.....	8-127
ICTTC202A	Use specific enterprise systems to satisfy customer requirements	8-132
ICTTC203A	Navigate and interrogate specific enterprise systems to satisfy customer requirements	8-137
ICTTC204A	Provide quality customer service	8-142
ICTTC213A	Provide support and assistance to customers on matters relating to a particular product(s)/service	8-148
ICTTC214A	Process general inquiries from customers and provide associated support and assistance	8-153
ICTTC217A	Action reports of product/service faults reported by customers.....	8-158
ICTTC218A	Negotiate with customers on major product/service faults.....	8-164
ICTTC220A	Resolve customer complaints.....	8-170
ICTTC221A	Resolve the more complex customer complaints	8-175
ICAITU204A	Locate and evaluate online information	8-180
ICAITU205A	Select and employ software and hardware multimedia tools	8-184
ICAITU206A	Check site security	8-189
ICAITU207A	Apply a web authoring tool to convert client data	8-192
ICAITU208A	Use site server tools for e-business	8-197
ICAITU211A	Operate accounting applications.....	8-203
ICAITU213A	Conduct online transactions	8-207
ICAITU215A	Use personal productivity tool.....	8-211

UNIT	ICAITU004C Apply Occupational Health and Safety Procedures
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to support the organisation’s Occupational Health and Safety principles and practices
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine Occupational Health and Safety (OH & S) issues relating to immediate work environment	<ol style="list-style-type: none"> 1. Occupational Health and Safety supervisor is determined 2. Occupational Health and Safety issues in the immediate workplace are assessed and action to rectify the problem is taken or reported to supervisor 3. Workplace and OH&S procedures are followed to ensure safe working environment
2. Document and disseminate Occupational Health and Safety requirements	<ol style="list-style-type: none"> 1. Information relating to Occupational Health and Safety regulations and requirements is obtained 2. OH&S regulations impacting upon the Information Technology client area are determined and documented 3. Documents are submitted to supervisor for verification 4. Occupational Health and Safety documents are provided to all work stations 5. Occupational Health and Safety documents relating to IT are updated and re-issued as required
3. Provide basic ergonomic advice	<ol style="list-style-type: none"> 1. Ergonomic requirements of clients are assessed 2. Advice is provided to clients based on vendor requirements, workplace policies and the latest OH&S information 3. Advice is documented and passed on to client and supervisor

UNIT	ICAITU004C Apply Occupational Health and Safety Procedures
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Organisational	Variables may include but are not limited to: <ul style="list-style-type: none"> • Occupational Health and Safety legislation; • organisation safety procedures; • work stations and work environment procedures; • presence and impact of OH&S manager
Advice on ergonomics	Includes: <ul style="list-style-type: none"> • Occupational Health Safety procedures; • Using and cleaning Visual Display Units (VDUs); • advice on footrests, • exercises, • times for breaks, • armrests, • chairs.
Operating Systems	Command line and Graphical User Interface
Literacy skills	In relation to work place documentation may vary
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Quality process	Some organisations may be quality certified and have well documented standards for addressing quality while others will not

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to comply with Occupational Health and Safety requirements relating to the use of computing equipment through the practical demonstration of the identification of unsafe practices and taking action to correct them.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITU004C Apply Occupational Health and Safety Procedures
-------------	---

Underpinning skills and knowledge

Underpinning knowledge:

- General OH&S principles, responsibilities and legislation
- General ergonomic principles to avoid back, wrist and eye strain
- Procedures and exercises for avoiding strain and injury
- Current business practices in relation to preparing reports
- Broad knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations

Underpinning skills:

- Reading and writing are at a level where basic workplace documents are understood and presented
- Questioning and active listening is employed to confirm information
- Plain English literacy and communication skills in relation to dealing with clients and team members
- Problem solving skills for a defined range of predictable problems

Resources

This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills.

Assessment of this competency requires access to:

- Simulated workplace environment
- Workplace OHS policies

Competency is to be assessed through practical demonstration of Occupational Health and Safety as relevant to the work environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time.

Context

Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information. This competency can be assessed in the workplace or in a simulated environment.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICAITU005C Operate computer hardware
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to determine, select and correctly operate basic computer hardware
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Use appropriate office peripherals	1. Functions of office peripherals are identified 2. Requirements of task are determined 3. Appropriate hardware is selected to perform task 4. Hardware is used to produce required outcome
2. Operate and maintain a range of hardware	1. A range of hardware equipment is operated to complete routine tasks 2. Hardware consumables are determined and replaced
3. Use keyboard and equipment	1. Occupational Health and Safety regulations are followed 2. Keyboarding is carried out according to organisation guidelines on speed and accuracy

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Storage Media/Disks	May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs
Technical instructions	Technical instructions for use of specific computer hardware.
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards

UNIT	ICAITU005C Operate computer hardware
-------------	---

Occupational Health and Safety	Guidelines relate to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations
Organisational	Variables may include but are not limited to: security procedures; Occupational Health and Safety procedures; maintenance procedures
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Quality process	Some organisations may be quality certified and have well documented standards for addressing quality while others will not.
Hardware	<p>Variables may include but are not limited to:</p> <ul style="list-style-type: none"> • personal computers, • networked systems, • personal organisers, • communications equipment; <p>peripherals may include:</p> <ul style="list-style-type: none"> • printers, • scanners, • tape cartridges, • speakers, • multi media kits; <p>keyboard equipment may include:</p> <ul style="list-style-type: none"> • mouse, • touch pad, • keyboard, • pens

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence	Assessment must confirm the ability to determine, select and use hardware components and functions correctly and efficiently according to the task requirement. Hardware consumables are correctly identified and utilised according to the task requirement.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITU005C Operate computer hardware
-------------	---

Underpinning skills and knowledge

Underpinning knowledge:

- OH&S principles and responsibilities
- Ergonomic principles to avoid back, wrist and eye strain
- Procedures and exercises for avoiding strain and injury
- Basic knowledge of current industry accepted hardware and software products with broad knowledge of general features and capabilities

Underpinning skills:

- Reading and writing at a level where basic workplace documents are understood
- Decision making skills in a narrow range of areas
- Problem solving skills for a defined range of predictable problems

Resources

This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills.

Assessment of this competency requires access to:

- A PC or workstation

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time.

Context

Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICAITU006C Operate computing packages
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to identify, select and correctly operate desktop applications for a range of purposes
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Use appropriate software	<ol style="list-style-type: none"> 1. Requirements of task are identified 2. Appropriate software is selected to perform task 3. Software is used to produce required outcome using a range of features and functions 4. Documents are saved and stored in appropriate directories
2. Access, retrieve and manipulate data	<ol style="list-style-type: none"> 1. Software application is opened 2. Required file is accessed and is amended according to requirements 3. Documents are produced to meet organisational requirements in a manner that incorporates OH&S practices 4. File is saved in appropriate directories 5. Applications are exited without loss of data
3. Access and use help	<ol style="list-style-type: none"> 1. Online help is accessed and used to overcome basic difficulties with applications 2. Manuals and training booklets are used to solve minor problems 3. Request are logged with help desk if requiring further help
4. Use keyboard and equipment	<ol style="list-style-type: none"> 1. Occupational Health and Safety regulations are followed for correct posture, lighting and length of time in front of computer 2. Keyboarding is carried out according to organisation guidelines on speed and accuracy

UNIT

ICAITU006C Operate computing packages

RANGE OF VARIABLES

VARIABLE

SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works, Star Office or other similar applications
Storage Media/Disks	May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
IT components	Can include hardware, software and communications packages
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to produce several workplace documents utilising a minimum of three different functional desktop applications. Within each desktop application a wide range of features are utilised
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITU006C Operate computing packages
-------------	--

Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> General OH&S principles and responsibilities Basic understanding of using systems, technical Basic technical terminology in relation to reading help files and prompts Logging procedures relating to accessing a PC Organisational benchmarks for keyboarding 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> Basic analysis in relation to a limited range of routine areas Low level decision making in relation to a limited range of routine areas Problem solving skills in known areas during normal routine Reading and writing at a level where basic workplace documents are understood Communication is clear and precise Interpretation of user manuals
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills.</p> <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace.</p>	
Context	<p>Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.</p> <p>This competency can be assessed in the workplace or in a simulated environment. If this competency is assessed as part of a training course and the candidate is not employed in the industry they will need to demonstrate familiarity with 3 desktop applications by identifying the general features, strengths and the weaknesses of each in relation to the client's business requirements. This is in addition to the above critical aspects of evidence</p>	

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICAITU007B Maintain equipment and consumables
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to maintain the operation of basic hardware and the replacement of consumables
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Clean disc drives and peripherals	<ol style="list-style-type: none"> 1. Disc cleaning materials are accessed from stores 2. Inventory systems are accessed and events are documented according to organisational procedures 3. Discs/peripherals are cleaned as recommended by manual in accordance with vendor requirements and as required by organisation
2. Replace and maintain consumables and supplies	<ol style="list-style-type: none"> 1. Stock is accessed from store and information is recorded according to organisational procedures 2. Relevant manual is accessed 3. Consumables are replaced 4. Hardware is tested to ensure it is in working order
3. Maintain peripherals	<ol style="list-style-type: none"> 1. Equipment requiring maintenance is determined 2. Equipment is maintained as required by organisation guidelines 3. Maintenance is documented as required by organisation guidelines 4. Unused peripherals are stored in line with vendor/manuals' guidelines

RANGE OF VARIABLES	
VARIABLE	SCOPE
Hardware	Variables may include but are not limited to: personal computers, networked systems, personal organisers, communications equipment; peripherals may include, printers, scanners, tape cartridges, speakers, multi media kits; keyboard equipment may include mouse, touch pad, keyboard, pens
Consumables	Variables may include but are not limited to: diskettes, ribbons, printer toner, paper, cartridges, cleaners, tape
Organisational	Variables may include but are not limited to: security procedures; logged calls procedures; Occupational Health and Safety legislation; preventive maintenance and diagnostic policy; maintenance manuals, in-house or vendor; disposal policy; contracting arrangements relating to Information Technology purchasing
Suppliers	Range of suppliers and supplier procedures may vary

UNIT	ICAITU007B Maintain equipment and consumables
-------------	--

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence	Assessment must confirm the ability to maintain and replace at least the following equipment and consumables: replacing printer ribbons; laser cartridges; cleaning mouses; monitors, disc drives, and keyboards		
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.		
Underpinning skills and knowledge	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;"> Underpinning knowledge: <ul style="list-style-type: none"> Basic principles and responsibilities of OH&S Basic understanding of organisational systems, in relation to storage and retrieval of information and goods Basic knowledge of current industry accepted hardware and software </td> <td style="width: 50%; padding: 5px;"> Underpinning skills: <ul style="list-style-type: none"> Decision making in relation to a limited number of known choices Basic technical diagnostic skills in relation to a limited number of known choices Basic evaluation skills in relation to a limited number of known choices Literacy skills in regard to basic workplace documentation </td> </tr> </table>	Underpinning knowledge: <ul style="list-style-type: none"> Basic principles and responsibilities of OH&S Basic understanding of organisational systems, in relation to storage and retrieval of information and goods Basic knowledge of current industry accepted hardware and software 	Underpinning skills: <ul style="list-style-type: none"> Decision making in relation to a limited number of known choices Basic technical diagnostic skills in relation to a limited number of known choices Basic evaluation skills in relation to a limited number of known choices Literacy skills in regard to basic workplace documentation
Underpinning knowledge: <ul style="list-style-type: none"> Basic principles and responsibilities of OH&S Basic understanding of organisational systems, in relation to storage and retrieval of information and goods Basic knowledge of current industry accepted hardware and software 	Underpinning skills: <ul style="list-style-type: none"> Decision making in relation to a limited number of known choices Basic technical diagnostic skills in relation to a limited number of known choices Basic evaluation skills in relation to a limited number of known choices Literacy skills in regard to basic workplace documentation 		
Resources	Competency can be demonstrated in a simulated environment on typical workplace equipment and consumables. Peers and supervisors for obtaining information on the extent and quality of the contribution made.		
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts		
Context	Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.		

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICAITU012C Design organisational documents using computing packages
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to produce organisational documents using application software within organisational guidelines
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU012B, ICAITU013B, ICAITU014B.
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Design documents to meet organisational requirements	<ol style="list-style-type: none"> 1. Business document requirements are determined and configured 2. Organisational design guidelines are determined and implemented 3. Appropriate software is selected 4. Software is used to design documents 5. Documents are stored for access and editing as required 6. Client requirements are satisfied or client is referred to appropriate person
2. Access, retrieve and manipulate data	<ol style="list-style-type: none"> 1. Software application is opened 2. File is determined and opened, and design is amended according to requirements 3. Documents are designed to meet organisational requirements 4. Applications are exited without loss of data

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Software	<p>Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities</p> <p>May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works, Star Office or other similar applications</p>
Storage Media/Disks	May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs
IT components	Can include hardware, software and communications packages

UNIT	ICAITU012C Design organisational documents using computing packages
-------------	--

Hardware	<p>Variables may include but are not limited to:</p> <ul style="list-style-type: none"> • personal computers, • networked systems, • personal organisers, • communications equipment; <p>peripherals may include:</p> <ul style="list-style-type: none"> • printers, • scanners, • tape cartridges, • speakers, • multi media kits; <p>keyboard equipment may include: mouse, touch pad, keyboard, pens</p>
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
Occupational Health and Safety	Guidelines relate to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations
Business documents	Can include newsletters, client database, proposals, reports, account statements, project reviews and web pages

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence	Competency should be demonstrated by producing organisational documents using application software within organisational guidelines; Competency should be demonstrated by building several working documents, with final output being produced with minimum supervision. Function and features of a range of available software applications are readily accessed and employed according to organisational requirements
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU012B, ICAITU013B, ICAITU014B The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT **ICAITU012C Design organisational documents using computing packages**

Underpinning skills and knowledge

Underpinning knowledge:

- Detailed knowledge of organisational style guide
- Organisation storage and retrieval procedures
- Broad knowledge of function and features of operating systems
- General Occupational Health and Safety regulations
- Current business practices in relation to preparing reports
- Use of input/output devices
- Organisational procedures for document design

Underpinning skills:

- Decision making in a limited range of options
- General customer service in relation to internal customers
- Questioning and active listening are employed to clarify information
- Problem solving skills for known problems in routine procedures
- Basic analytical skills for known problems in routine procedures
- Literacy in regard to general workplace documentation
- ICAITU005B
- ICAITU006B

Resources

This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace.

Context

An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/ information.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate basic operational knowledge in a moderate range of areas;
- apply a defined range of skills;
- apply known solutions to a limited range of predictable problems;
- perform a range of tasks where choice between a limited range of options is required;
- assess and record information from varied sources; and
- take limited responsibility for one’s own outputs in work and learning.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	2	1	2	1	2	1

UNIT	ICAITU013C Integrate commercial computing packages
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit expresses the competency required to apply appropriate conversion formats and manipulation of data between commercial application software
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITU004B, ICAITU005B, ICAITU006B, ICAITU012B, ICAITU013B, ICAITU014B
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Produce required organisational documents	1. Appropriate packages and conversion techniques are used to achieve an integrated outcome 2. Data is imported/exported to produce required outcome 3. Data is saved and re-accessed without loss of data
2. Determine and use help	1. Help is accessed through online help and manuals 2. Internal organisation client documentation is obtained and used

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works, Star Office or other similar applications
Storage Media/Disks	May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures

UNIT	
UNIT	ICAITU013C Integrate commercial computing packages
Hardware	<p>Variables may include but are not limited to:</p> <ul style="list-style-type: none"> • personal computers, • networked systems, • personal organisers, • communications equipment; <p>peripherals may include:</p> <ul style="list-style-type: none"> • printers, • scanners, • tape cartridges, • speakers, • multi media kits; <p>keyboard equipment may include mouse, touch pad, keyboard, pens</p>
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Sources and output of data	Variables may include but are not limited to: hard disk; floppy disks; paper; format of data source or data output, ie ASCII and application specific format

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to apply appropriate conversion formats and manipulate data between commercial application software	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU012B, ICAITU013B, ICAITU014B The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • General understanding of features and functions of particular categories of commercial computing packages • Software packages supported by the organisation • General Occupational Health and Safety regulations • Use of input/output devices • Current business practices in relation to preparing reports • Importing/exporting functions 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Reading and general comprehension of technical manuals • Decision making in a limited range of options • Basic analytical skills for known problems in routine procedures • Problem solving skills in regard to known problems in routine processes • Use of commercial computing packages • ICAITU005B • ICAITU006B

UNIT	ICAITU013C Integrate commercial computing packages
-------------	---

Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills.</p> <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace.</p>
Context	<p>An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/ information.</p> <p>Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate basic operational knowledge in a moderate range of areas; • apply a defined range of skills; • apply known solutions to a limited range of predictable problems; • perform a range of tasks where choice between a limited range of options is required; • assess and record information from varied sources; and • take limited responsibility for one’s own outputs in work and learning.

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	2	1	1	1	1	2

UNIT	ICAITU018C Develop macros and templates for clients using standard products
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit expresses competency required to develop macros and templates for clients using industry recognised software applications
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU012B, ICAITU013B, ICAITU014B.
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine macro or template requirement	1. Client requirements are determined in line with organisational guidelines 2. Macro/template specifications are developed and client's needs are confirmed
2. Develop macro or template for client	1. Macro/template specifications are developed using standard package in line with organisation guidelines 2. Client feedback is obtained 3. Amendments are made as required for client
3. Provide client support for the macro or template	1. Support/instruction requirements are determined and documented 2. Client is instructed in use of macro/template 3. Client documentation is provided to help desk for future support

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works, Star Office or other similar applications
Storage Media/Disks	May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs
IT components	Can include hardware, software and communications packages

UNIT	ICAITU018C Develop macros and templates for clients using standard products
-------------	---

Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Organisational	Variables may include but are not limited to: client service standards; style guide; client support documentation procedures; storage procedures for macro/template such as, common drive, hard disk, software library
Macros	Macros used are recorded

EVIDENCE GUIDE

Critical aspects of evidence	Competency must be demonstrated in the development of a variety of macros and templates using at least three industry recognised application packages. Competency must be demonstrated in the development of a specification for macros and templates	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU012B, ICAITU013B The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • General knowledge of functions and features of the operating system • General knowledge of software and hardware supported by the organisation • General understanding of features and functions of particular categories of commercial computing packages • Software packages supported by the organisation 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Solving known problems within a range of procedures • Questioning and active listening for clarifying information • Plain English literacy and communication skills in relation to dealing with clients and team members • Ability to read and interpret software manuals from a user’s perspective • One to one instruction • ICAITU012B
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills.</p> <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace.</p>	

UNIT

ICAITU018C Develop macros and templates for clients using standard products**Context**

An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/ information.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate basic operational knowledge in a moderate range of areas;
- apply a defined range of skills;
- apply known solutions to a limited range of predictable problems;
- perform a range of tasks where choice between a limited range of options is required;
- assess and record information from varied sources; and
- take limited responsibility for one's own outputs in work and learning.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITU019C Migrate to new technology
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to transfer and apply skills and knowledge to new technology and situations
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Apply existing knowledge and techniques to new technology	<ol style="list-style-type: none"> 1. Existing knowledge and techniques are applied to explore new technology 2. New technology acquired by the organisation is used with minimum disruption 3. Functions and features of new technology available to the organisation are readily employed to meet organisational requirements
2. Apply advanced functions of the technology to solve organisational problems	<ol style="list-style-type: none"> 1. Specialised features of technology, software and hardware are utilised to solve organisational problems 2. Advanced features and functions are used in a manner that exploits the full capacity of the new technology 3. Sources of information are accessed to determine the full range of benefits of new technology
3. Apply new functions of upgraded technology	<ol style="list-style-type: none"> 1. Specialised features of upgraded technology are used to solve organisational problems 2. Upgraded technology is used for enhanced productivity and efficiency

UNIT	ICAITU019C Migrate to new technology
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Hardware	is limited to commercially available products. Hardware variables may include but are not limited to single and multi-client platforms
Data	<p>Variables may include but are not limited to: established computer based files, data from mixed sources and applications such as, mainframe hierarchical files, standard relational tables, and proprietary application file systems such as SAP</p> <p>Supplementary questioning may be used during the summative assessment phase, where necessary, to ensure that:</p> <ul style="list-style-type: none"> • all data is complete and valid, • the structural integrity of both the legacy system and the new database/data warehouse is sound, • the data reflects and works with the business rules and data standards, • the data will work well with the conversion process.
Existing data	May be already in a computer system or stored manually, includes but not limited to names and addresses, financial transactions, employee records, receipts, despatches, invoices, cheques, etc.
Database	May be a simple collection of files accessed by programs or based upon a complex Database Management System
Software	<p>Limited to commercially available products. Specialised features are those identified in packages.</p> <p>Software variables may include but are not limited to: data files obtained from Email, floppy disk, common drives; commercial software applications; word processing, spreadsheet, database, graphic, mail, communication packages and presentation functionalities; format of data, ie. ASCII, application specific</p>
DBMS	Can include distributed or centralised, online, partitioned geographically or thematically distributed. Client/server or legacy databases may include DB2, Tandem Enscribe, IMS, Informix, Oracle, SAP R/3, Sybase, NCR Teradata, and VSAM. Object-oriented databases and relational databases
Client	<p>May be a department within an organisation, a business requiring an e-commerce solution or a third party and so the relationship and ease of access will vary.</p> <p>Supplementary questioning of the client may be used during the assessment phase, where necessary, to ensure that all issues relating to the client business information requirements were considered and appropriate choices made given the business objectives and business information and archiving requirements.</p>
Documentation and Reporting	<p>Includes maintaining standards of definition, standards of format, user access information. Information should be clear and written in such a way that it will be readily understood by the target audience.</p> <p>Reports meet the specific output requirements and are presented in a logical and accessible manner.</p>
Information source	Variables may include but are not limited to: trade magazines; electronic media and communications; product demonstrations; industry trade fairs and conferences; technical manuals; supplier technical consultants

UNIT	ICAITU019C Migrate to new technology
-------------	---

EVIDENCE GUIDE

Critical aspects of evidence	Competency must confirm the ability to transfer the application of existing skills and knowledge to new technology. Advanced knowledge of generic applications is demonstrated on a minimum of three software applications	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Current technology trends and directions in IT • Broad knowledge base of vendor product directions • Available sources of information regarding IT and new technology • Organisation strategic direction in relation to future IT requirements • Understanding systems, organisational and technical • Board understanding with detail in some areas of operating systems features and functions • Software features and functions • Identify components of the business planning process relevant to the development of IT business solutions • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • Broad general knowledge of the client business domain • A basic knowledge of information gathering techniques 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Research skills for identifying, analysing and evaluating broad features of new technologies • Decision making involving discretion and judgement • Verbal and non-verbal communication is clear, coherent and concise • Customer Service for internal and external interaction • Questioning and active listening for conveying and clarifying meaning • Literacy skills in regard to interpretation of technical manuals • Solving known problems in a variety of contexts • General analytical skills in relation to known problems in a variety of contexts • General research skills in relation to readily available information

UNIT	ICAITU019C Migrate to new technology
-------------	---

Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • a data conversion plan • an implementation plan • if necessary a conversion program <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to identify the system components and select and document the system.</p>
Context	<p>Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate some relevant theoretical knowledge; • apply a range of well developed skills; • apply known solutions to a variety of predictable problems; • perform processes that require a range of well developed skills where some discretion and judgement is required; • interpret available information, using discretion and judgement; • take responsibility for one’s own outputs in work and learning; and • take limited responsibility for the output of others.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	3	3

UNIT	ICAITU028C Customise packaged software applications for clients
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to analyse, design, implement and review the customisation of packaged software applications using simple programming constructs
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU012B, ICAITU013B, ICAITU014B.
---	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine customisation requirements of client	<ol style="list-style-type: none"> 1. Client requirements are determined and are documented in line with organisational requirements 2. System relationships are determined 3. Client requirements are analysed 4. Client requirements are actively listened to and conformed to 5. Report for supervisor is prepared to client requirements 6. Client agreement on report is obtained
2. Analyse impact of customisation on system relationship	<ol style="list-style-type: none"> 1. Customisation is designed taking into account system limitations 2. Customisation is designed taking into account client needs 3. Client agreement on design is obtained 4. Software package is customised using simple programming constructs conforming to organisational guidelines 5. Client feedback following client testing and application is obtained 6. Changes to customisation are made to meet amended client requirements
3. Provide support for customised application	<ol style="list-style-type: none"> 1. Training requirements of client are determined and are documented 2. One to one instruction is carried out 3. Client documentation is prepared and is provided to client and help desk for future support
4. Obtain client feedback	<ol style="list-style-type: none"> 1. Client evaluation and feedback is obtained to ensure their requirements are met 2. Function is performed by client unassisted and according to instruction

UNIT

ICAITU028C Customise packaged software applications for clients

RANGE OF VARIABLES

VARIABLE

SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works, Star Office or other similar applications
Storage Media/Disks	May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs
IT components	Can include hardware, software and communications packages
Organisational	Variables may include but are not limited to: client service standards; style guide; client support documentation procedures; storage procedures for macro/template such as, common drive, hard disk, software library
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Tools	Tools to enable documentation, application customisation
Customised software	Limited to the features of a commercial application
Hardware	Limited to personal computers, peer to peer networked computers and client servers
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

EVIDENCE GUIDE

Critical aspects of evidence	Competency must be demonstrated in customising existing software applications such as relational databases. Competency must be demonstrated in the analysis, implementation and review of customisation of packaged software applications
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU012B, ICAITU013B The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITU028C Customise packaged software applications for clients
-------------	--

Underpinning skills and knowledge

Underpinning knowledge:

- Detailed knowledge of function and features of software applications
- General knowledge of organisational security procedures
- Organisational policy for customising software
- Broad knowledge of Information Technology structure and system infrastructure
- Broad knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations
- Organisational policy and procedures relating to customising software
- General knowledge of functions and features of the operating system
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities
- A basic knowledge of information gathering techniques

Underpinning skills:

- Solving unknown problems in a range of contexts
- Decision making in a wide range of contexts
- Report writing involving analysis and evaluation in some depth
- Apply customer service skills in a range of contexts at various levels
- Questioning and active listening to convey and clarify complex information
- One to one instruction
- Technical interpretation skills in relation to routine problems and issues
- ICAITU019B

Resources

This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills.

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace.

UNIT

ICAITU028C Customise packaged software applications for clients

Context

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate some relevant theoretical knowledge;
- apply a range of well developed skills;
- apply known solutions to a variety of predictable problems;
- perform processes that require a range of well developed skills where some discretion and judgement is required;
- interpret available information, using discretion and judgement;
- take responsibility for one's own outputs in work and learning; and
- take limited responsibility for the output of others.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITU126B Use advanced features of computer applications
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to utilise computer applications to their full capacity employing all advanced features as required
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITS020C, ICAITS025B, ICAITS031B, ICAITS024C.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Manipulate data	<ol style="list-style-type: none"> 1. Advanced features of application are employed in the preparation and presentation of data 2. Data is efficiently transferred between applications 3. Objects, macros and templates are created and employed for routine activities 4. Shortcuts and features are regularly employed for increased productivity 5. Related data files are linked as required
2. Access and use support resources	<ol style="list-style-type: none"> 1. Routine problems are solved with the use of support resources 2. Online help is accessed and used to overcome difficulties with applications 3. Manuals and training booklets are used to solve advanced problems 4. Problems are analysed and eliminated according to results 5. Technical support is accessed and trouble shooting results and alert messages are supplied to technical support
3. Configure the computing environment	<ol style="list-style-type: none"> 1. Performance of PC is enhanced 2. Environment is configured according to user/ organisational requirements 3. PC environment is customised and optimised

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Hardware	Variables may include but are not limited to; <ul style="list-style-type: none"> • personal computers and • networked systems
-----------------	---

UNIT	ICAITU126B Use advanced features of computer applications
Document	Variables may include but are not limited to: established files and applications
Software	<p>Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities</p> <p>May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works, Star Office or other similar applications</p>
Storage Media/Disks	May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
IT components	Can include hardware, software and communications packages
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to utilise computer applications to their full capacity employing all advanced features and import / export capacities for efficiency and productivity purposes	
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS020C, ICAITS025B, ICAITS031B, ICAITS024C The interdependence of units of competency for assessment will vary with the particular project or scenario	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • General OH&S principles and responsibilities • Basic understanding of operating systems software and system tools • Broad knowledge base of vendor product directions • Broad knowledge base of vendor applications and their features • Basic understanding of troubleshooting • Broad knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Basic analysis skills in relation to normal routine work processes • Detailed skills in using applications features • Basic skills in interpreting technical information • Problem solving skills in known areas during normal routine work processes • Plain English literacy and communication skills in relation to dealing with clients and team members
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills.</p> <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>	

UNIT	ICAITU126B Use advanced features of computer applications
-------------	--

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace.

Context

An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/ information.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate basic operational knowledge in a moderate range of areas;
- apply a defined range of skills;
- apply known solutions to a limited range of predictable problems;
- perform a range of tasks where choice between a limited range of options is required;
- assess and record information from varied sources; and
- take limited responsibility for one’s own outputs in work and learning.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	2	1	1	1	1	1

UNIT	ICAITU127B Support system software
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to operate and support system software.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include : ICAITS024C, ICBITS012A, ICAITS020C, ICBITB002A, ICBITI013A, ICBITS013A.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Maintain system software	<ol style="list-style-type: none"> 1. System effectiveness is evaluated against vendor and organisation's performance requirements and benchmarks, to determine if maintenance activities should be commenced 2. System utilisation, file and disk structure, performance reports and files are used to identify any peak periods or possible performance problems 3. System data levels are monitored to determine whether system performance is consistent with predetermined standards 4. Troubleshooting is achieved with appropriate system tools 5. The system is monitored and retuned, where applicable for improved performance
2. Set up and manage the system files	<ol style="list-style-type: none"> 1. Client user system requirements are evaluated and the appropriateness of file and folder structures are monitored 2. Appropriate administration and system tools are used to create file and folder structures 3. Security, access and sharing of file system to meet client user requirements are set 4. Virus protection requirements of the network are identified in line with organisational procedures 5. File system is tested to ensure that appropriate access is available to the client user groups 6. Simple programming constructs are checked to conform to organisational guidelines 7. File system created in accordance with organisational standards is documented
3. Manage system usage	<ol style="list-style-type: none"> 1. Users are given access to system 2. Access and use of the system is made seamless to users 3. Access to information and resources is made clear and apparent 4. System services are integrated with assistance of system tools

UNIT	
ICAITU127B Support system software	
4. Monitor system security	<ol style="list-style-type: none"> 1. User access is monitored against user access levels 2. Security requirements for client users and data to be stored on network are reviewed 3. Risks that data is exposed to, and appropriate prevention and recovery processes are determined 4. System is implemented to provide back-up and to restore services in the event of a disaster 5. Disaster recovery procedures are documented
5. Carry out system back-up	<ol style="list-style-type: none"> 1. System is scanned for viruses and detected viruses are removed 2. System back-ups are completed according to organisational and system requirements 3. System back-ups are completed at regular intervals 4. System back-ups are recorded according to organisational requirements
6. Restore system back-up	<ol style="list-style-type: none"> 1. System restores are completed according to organisational guidelines 2. Restored system is optimised according to organisational requirements 3. System restores are documented in line with organisational requirements

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Operating systems	Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare
DBMS	Can include distributed or centralised, online, partitioned geographically or thematically distributed. Client/server or legacy databases may include DB2, Tandem Enscribe, IMS, Informix, Oracle, SAP R/3, Sybase, NCR Teradata, and VSAM. Object-oriented databases and relational databases
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates

UNIT	ICAITU127B Support system software
Hardware	<p>Can include IT equipment of all types:</p> <ul style="list-style-type: none"> • Workstations, PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, • Bridges, 3Com, Compaq, CISCO, IBM • modems, analog, cable, ISDN, DSL • servers, Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys • network cards, Adaptec, ARTIC, Compex, SMC • switches, 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies • hubs & repeaters, 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron, • routers & gateways, 3Com, CISCO, D-Link, Intel, • File & print servers, AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems,
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
File system	May involve multiple or single servers, multiple or single logical disks and complex directory or folder structures
Operating system	Each product will have different functionality and ways of operating. Third party products may also be used in administration.
Back-up	May involve simple, single tape unit back-up to more comprehensive and complex back-up facilities across the network.
Software	Variables may include but are not limited to: commercial system software; organisational specific systems software

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to monitor and maintain system software performance according to vendor and company benchmarks utilising a wide range of features and system tools
Interdependent assessment of units	This unit may be assessed with any of the following: ICAITS024C, ICAITS113B, ICAITS020C, ICAITB060B, ICAITI097A, ICAITS114 The interdependence of units of competency for assessment will vary with the particular project or scenario

UNIT	ICAITU127B Support system software
-------------	---

Underpinning skills and knowledge

Underpinning knowledge:

- General OH&S principles and responsibilities
- Detailed understanding of using system software and system tools
- Broad knowledge base of vendor product directions
- Broad general knowledge of the client business domain
- Broad knowledge base of quality assurance practices
- Broad general knowledge of change management systems
- Broad knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations

Underpinning skills:

- Analysis skills in relation to routine and non-routine work processes
- Project planning skills in relation to set benchmarks and identified scope
- Teamwork skills involve responsibility of self and contribution solutions and goals of a non-routine or contingency nature.
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Problem solving skills in non-routine work processes
- Plain English literacy and communication skills in relation to dealing with clients and team members

Resources

This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills

To demonstrate competence in this unit the candidate will need access to:

- Organisational performance benchmarks
- A live system
- Client user requirements

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to identify the system components and select and document the system.

UNIT	ICAITU127B Support system software
------	---

Context

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	2	2	2	2	3

UNIT	ICAITU128A Operate a personal computer
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to start up, identify and select icons, correctly navigate and organise the desktop environment and use a range of functions
--------------------	--

RELATED COMPETENCY STANDARDS	This unit of competence is a fundamental skill required for using IT in any environment. Other fundamental units of competence include ICAITU129A Operate a word processing application, ICAITU130A Operate a spreadsheet application, ICAITU131A Operate a database application, ICAITU132A Operate a presentation package, ICAITU133A Send and retrieve information over the internet using browsers and email.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Start computer and access basic system information and features	<ol style="list-style-type: none"> 1. Examine basic system information to identify basic functions and features 2. Customise desktop configuration to meet individual requirements and/ or special needs and company guidelines 3. Erase and format disks as necessary 4. Use available help functions as required
2. Navigate and manipulate desktop environment	<ol style="list-style-type: none"> 1. Select, open and close correct desktops icons to access features (directories/ folders, files, network devices, recycle bin/ waste basket) 2. Use different roles and parts of the desktop window for particular functions 3. Open, resize and close desktop windows for navigation purposes 4. Create shortcuts from the desktop
3. Organise basic directory and folder structures	<ol style="list-style-type: none"> 1. Create and name directories/ folders with subdirectories/ subfolders 2. Identify directory /folder attributes (size, dates, etc.) 3. Move subdirectories/ folders between directories/ folders 4. Rename directories / folders as required 5. Access directories / folders and subdirectories/ folders via different paths

UNIT

ICAITU128A Operate a personal computer

4. Organise files for user and/ or organisational requirements	<ol style="list-style-type: none"> 1. Access the most commonly used types of files in a directory/ folder 2. Select, open and rename groups of files as required 3. Copy, cut and paste files across directories 4. Copy files to disk 5. Restore delete files as necessary 6. Use software tools to locate files
5. Print information	<ol style="list-style-type: none"> 1. Print information from an installed printer 2. View and delete progress of print jobs as required 3. Change default printer from installed list, if available
6. Correctly shut down computer	<ol style="list-style-type: none"> 1. Close all open applications 2. Shut down computer correctly

RANGE OF VARIABLES

VARIABLE

SCOPE

The Range of Variables statement contextualise the unit of competence and provide a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Hardware	variables may include but are not limited to personal computers and networked systems
Document	variables may include but are not limited to: help files, established files and applications
Operating Systems	Command line and Graphical User Interface
Disks	may include but are not limited to: diskettes, CDs, zip disks
Organisational	variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines
IT components	can include hardware, software and communications packages
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements
Workplace environment	May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organisation
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates
Standards and procedures	Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost

UNIT	ICAITU128A Operate a personal computer
-------------	---

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to start-up and navigate around the desktop, using system features to perform tasks				
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and could therefore be assessed in a holistic manner with ICAITU129A Operate a word processing application, ICAITU130A Operate a spreadsheet application, ICAITU131A Operate a database application, ICAITU132A Operate a presentation package, ICAITU133A Send and retrieve information over the internet using browsers and email.				
Underpinning skills and knowledge	<table border="1" style="width: 100%;"> <tr> <td style="vertical-align: top;">Underpinning Knowledge includes:</td> <td style="vertical-align: top;">Underpinning Skills includes:</td> </tr> <tr> <td> <ul style="list-style-type: none"> • General OH&S principles and responsibilities • Organisational benchmarks for keyboarding • Types of computers • Main parts of a computer and various hardware components • Storage devices and basic categories of memory • Basic computer performance in relation to the information provided in advertisements for computers • Types of software • General security, viruses, privacy legislation, copyright </td> <td> <ul style="list-style-type: none"> • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Mouse usage skills • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals and help functions • Logging procedures relating to accessing a PC </td> </tr> </table>	Underpinning Knowledge includes:	Underpinning Skills includes:	<ul style="list-style-type: none"> • General OH&S principles and responsibilities • Organisational benchmarks for keyboarding • Types of computers • Main parts of a computer and various hardware components • Storage devices and basic categories of memory • Basic computer performance in relation to the information provided in advertisements for computers • Types of software • General security, viruses, privacy legislation, copyright 	<ul style="list-style-type: none"> • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Mouse usage skills • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals and help functions • Logging procedures relating to accessing a PC
Underpinning Knowledge includes:	Underpinning Skills includes:				
<ul style="list-style-type: none"> • General OH&S principles and responsibilities • Organisational benchmarks for keyboarding • Types of computers • Main parts of a computer and various hardware components • Storage devices and basic categories of memory • Basic computer performance in relation to the information provided in advertisements for computers • Types of software • General security, viruses, privacy legislation, copyright 	<ul style="list-style-type: none"> • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Mouse usage skills • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals and help functions • Logging procedures relating to accessing a PC 				
Resources	<p>Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.</p> <p>The candidate needs access to a personal computer and a printer to perform this unit of competence</p> <p>Assessment of this unit of competence could include review of documents developed by the candidate. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>				
Consistency	Competence in this unit may be assessed using formative assessment to ensure consistency of performance in a range of contexts. Simulated activities must closely reflect the workplace				
Context	<p>Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.</p> <p>This competency can be assessed in the workplace or in a simulated environment</p>				

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	Nil	1	1	Nil	1	1

UNIT	ICAITU129A Operate a word processing application
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to correctly operate word processing applications and perform basic operations
--------------------	--

RELATED COMPETENCY STANDARDS	This unit of competence is a fundamental skill required for using IT in any environment. Other fundamental units of competence include ICAITU128A Operate a personal computer, ICAITU130A Operate a spreadsheet application, ICAITU131A Operate a database application, ICAITU132A Operate a presentation package, ICAITU133A Send and retrieve information over the internet using browsers and email.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Create documents	<ol style="list-style-type: none"> 1. Open documents and add text and symbols according to information requirements 2. Use document templates as required 3. Use various tools including help, search and replace, spell check, undo and simple formatting tools throughout the drafting of a document 4. Add, select, copy, delete or move paragraphs within a document 5. Create a mailing list with acceptable layout for mail merge purposes without the loss of relevant information 6. Merge mailing list with other document 7. Save document to correct directory / folder
2. Customise basic settings to meet page layout conventions	<ol style="list-style-type: none"> 1. Adjust page display modes and size to meet user requirements and / or special needs 2. Modify toolbar to meet user and document uses 3. Change font type, size and colour for the purpose of the document 4. Apply alignment and justification options and line spacing according to document formatting requirements 5. Modify margin sizes to suit the purpose of the documents 6. View multiple documents at once

UNIT	ICAITU129A Operate a word processing application	
3. Format document	<ol style="list-style-type: none"> 1. Use italics, bold, underline and hyphenation as required and within organisational guidelines 2. Use existing styles within a document according to organisational requirements (style guides, document template layout) 3. Copy selected format from another area in the document or from another active document 4. Use formatting tools (such as page breaks, tabs, indent, borders, bookmarks, hyperlinks, lists) as required within the document 5. Insert headers and footers and incorporate all necessary information and formatting styles 6. Save document in another format and/ or in a format for posting to a web site 7. Save and close document to hard disk and disk 	
4. Create tables	<ol style="list-style-type: none"> 1. Insert a standard table in to a word processing document 2. Customise cell attributes to meet formatting and data requirements 3. Insert and delete columns and rows as necessary 4. Use borders and other formatting tools as necessary according to organisational style requirements 	
5. Add objects and images	<ol style="list-style-type: none"> 1. Insert images and /or graphics in a word processing document and customise as necessary 2. Import and format objects such as, spreadsheets and charts to fit word processing document requirements 3. Position and resize objects and images to meet the word processing document formatting needs 	
6. Print word processing documents	<ol style="list-style-type: none"> 1. Preview document in print preview mode 2. Select basic print options 3. Print document or part of the document from installed printer 	

RANGE OF VARIABLES

VARIABLE

SCOPE

The Range of Variables statement contextualise the unit of competence and provide a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Hardware	variables may include but are not limited to personal computers and networked systems
Document	variables may include but are not limited to: established files and new documents
Software	variables may include but are not limited to: commercial software applications; organisational specific software; word processing
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards

UNIT	ICAITU129A Operate a word processing application
Organisational	variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines
Operating Systems	Command line and Graphical User Interface
Disks	may include but are not limited to: diskettes, CDs, zip disks
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements
Workplace environment	May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organisation
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates
Standards and procedures	Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost

EVIDENCE GUIDE			
Critical aspects of evidence	Assessment must confirm the ability to complete basic operations associated with creating, formatting, saving and printing a document		
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and could therefore be assessed in a holistic manner with ICAITU128A Operate a computer, ICAITU130A Operate a spreadsheet application, ICAITU131A Operate a database application, ICAITU132A Operate a presentation package, ICAITU133A Send and retrieve information over the internet using browsers and email.		
Underpinning skills and knowledge	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <p>Underpinning Knowledge includes:</p> <ul style="list-style-type: none"> • General OH&S principles and responsibilities • Basic technical terminology in relation to reading help files and prompts • Logging procedures relating to accessing a PC • Organisational benchmarks for keyboarding • Security, viruses, privacy legislation, copyright • Types of software </td> <td style="vertical-align: top; width: 50%;"> <p>Underpinning Skills includes:</p> <ul style="list-style-type: none"> • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals and help functions </td> </tr> </table>	<p>Underpinning Knowledge includes:</p> <ul style="list-style-type: none"> • General OH&S principles and responsibilities • Basic technical terminology in relation to reading help files and prompts • Logging procedures relating to accessing a PC • Organisational benchmarks for keyboarding • Security, viruses, privacy legislation, copyright • Types of software 	<p>Underpinning Skills includes:</p> <ul style="list-style-type: none"> • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals and help functions
<p>Underpinning Knowledge includes:</p> <ul style="list-style-type: none"> • General OH&S principles and responsibilities • Basic technical terminology in relation to reading help files and prompts • Logging procedures relating to accessing a PC • Organisational benchmarks for keyboarding • Security, viruses, privacy legislation, copyright • Types of software 	<p>Underpinning Skills includes:</p> <ul style="list-style-type: none"> • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals and help functions 		

UNIT	ICAITU129A Operate a word processing application
-------------	---

Resources	<p>Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.</p> <p>Candidate will need access to a printer.</p> <p>To demonstrate this unit of competence the candidate will require access to documents detailing Organisational style guide/ policy</p> <p>Assessment of this unit of competence could include review of documents developed by the candidate. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	<p>Competence in this unit may be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace.</p>
Context	<p>Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.</p> <p>This competency can be assessed in the workplace or in a simulated environment</p>

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	Nil	Nil	1	1

UNIT	ICAITU130A Operate a spreadsheet application
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to correctly operate spreadsheet applications and perform basic operations
--------------------	--

RELATED COMPETENCY STANDARDS	This unit of competence is a fundamental skill required for using IT in any environment. Other fundamental units of competence include ICAITU129A Operate a word processing application, ICAITU128A Operate a personal computer, ICAITU131A Operate a database application, ICAITU132A Operate a presentation package, ICAITU133A Send and retrieve information over the internet
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Create spreadsheets	<ol style="list-style-type: none"> 1. Enter numbers, text and symbols in cells according to information requirements 2. Enter simple formulas and formulas using relative and absolute referencing where required 3. Correct formulas when standard error messages occur 4. Employ basic built in functions, such as sum and average 5. Use various tools including help, search and replace, spell check, undo and simple formatting tools during spreadsheet development 6. Add, select, copy, delete or move columns and rows within the spreadsheet 7. Copy or increment data entries for logical and clear presentation of information 8. Save spreadsheet to correct directory / folder
2. Customise basic settings	<ol style="list-style-type: none"> 1. Adjust page display modes, orientation and size to meet user requirements and / or special needs 2. Modify toolbar to meet user and document uses 3. Ensure font type, size and colour is appropriate for the purpose of the document 4. Apply alignment and justification options and line spacing according to spreadsheet formatting requirements 5. Modify column width and height to suit spreadsheet requirements 6. Format cells to display different styles, values and information as required 7. Modify margin sizes to suit the purpose of the spreadsheet 8. View multiple workbooks/ spreadsheets at once

UNIT	ICAITU130A Operate a spreadsheet application
3. Format spreadsheet	<ol style="list-style-type: none"> 1. Use italics, bold, underline and hyphenation as required 2. Copy selected format from another cell or group of cells in the spreadsheet or from another active spreadsheet 3. Use formatting tools (such as page breaks, tabs, indent, borders, lists) as required within the spreadsheet and / or individual cells 4. Align information in selected cells as required 5. Insert headers and footers and incorporate all necessary information and formatting styles 6. Save document in another format and in a format for posting to a web site 7. Save and close document to hard disk and disk
4. Incorporate objects and charts in spreadsheets	<ol style="list-style-type: none"> 1. Import and manipulate objects within a spreadsheet 2. Display spreadsheet data in different charts 3. Modify charts for formatting reasons
5. Print spreadsheets	<ol style="list-style-type: none"> 1. Preview spreadsheet in print preview mode 2. Select basic print options 3. Print spreadsheet or part of spreadsheet from installed printer

RANGE OF VARIABLES	
VARIABLE	SCOPE
Hardware	variables may include but are not limited to personal computers and networked systems
Document	variables may include but are not limited to: established files and new documents
Software	variables may include but are not limited to: commercial software applications; organisational specific software
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Organisational	variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines
Operating Systems	Command line and Graphical User Interface
Disks	may include but are not limited to: diskettes, CDs, zip disks
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements
Workplace environment	May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organisation

UNIT	ICAITU130A Operate a spreadsheet application
-------------	---

Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates
Standards and procedures	Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to complete basic operations associated with creating, formatting, saving and printing a spreadsheet, including creating basic formulas and working with objects and charts	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and could therefore be assessed in a holistic manner with ICAITU129A Operate a word processing application, ICAITU128A Operate a personal computer, ICAITU131A Operate a database application, ICAITU132A Operate a presentation package, ICAITU133A Send and retrieve information over the internet using browsers and email.	
Underpinning skills and knowledge	Underpinning Knowledge includes: <ul style="list-style-type: none"> • General OH&S principles and responsibilities • Logging procedures relating to accessing a PC • Organisational benchmarks for keyboarding • Basic mathematics • Basic technical terminology in relation to reading help files and prompts • Security, viruses, privacy legislation, copyright • Types of software 	Underpinning Skills includes: <ul style="list-style-type: none"> • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals • Mouse usage techniques

EVIDENCE GUIDE

Resources	<p>Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.</p> <p>Candidate will need access to a printer.</p> <p>To demonstrate this unit of competence the candidate will require access to documents detailing:</p> <ul style="list-style-type: none"> • Organisational style guide/ policy <p>Assessment of this unit of competence could include review of documents developed by the candidate. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	Competence in this unit may be assessed using formative assessment to ensure consistency of performance in a range of contexts. Simulation must closely reflect workplace practices.

UNIT	ICAITU130A Operate a spreadsheet application
-------------	---

Context

Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.

This competency can be assessed in the workplace or in a simulated environment

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	Nil	1	1	1

UNIT	ICAITU131A Operate database application
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to operate database applications and perform basic operations
--------------------	---

RELATED COMPETENCY STANDARDS	This unit of competence is a fundamental skill required for using IT in any environment. Other fundamental units of competence include ICAITU129A Operate a word processing application, ICAITU130A Operate a spreadsheet application, ICAITU128A Operate a personal computer, ICAITU132A Operate a presentation package, ICAITU133A Send and retrieve information over the internet using browsers and email.
---	--

ELEMENT	PERFORMANCE CRITERIA
1. Create a database	<ol style="list-style-type: none"> 1. Formulate a simple design for a two table database incorporating basic design principles 2. Develop tables with fields and attributes according to database usage requirements 3. Enter data and link and navigate tables 4. Create a primary key and establish an index 5. Modify table layout and field attributes as required 6. Modify data in tables for information requirements 7. Add and delete records as required 8. Follow correct close down procedures to ensure data is not lost
2. Customise basic settings	<ol style="list-style-type: none"> 1. Adjust page display modes, orientation and size to meet user requirements and / or special needs 2. Modify toolbar to meet user and database uses 3. Ensure font type, size and colour is appropriate for the purpose of the database
3. Create reports	<ol style="list-style-type: none"> 1. Design report to present data in a logical sequence 2. Modify reports to include / exclude additional information requirements 3. Modify existing reports to accommodate current information requirements 4. Distribute reports are in a suitable format (softcopy/ hardcopy)

UNIT	ICAITU131A Operate database application
4. Create forms	<ol style="list-style-type: none"> 1. Create simple forms which include imported files (images/graphics) and customised colours using a wizard 2. Open existing database and modify records through a simple form 3. Rearrange objects within the form to accommodate information requirements 4. Save and close database to hard disk and disk
5. Retrieve information	<ol style="list-style-type: none"> 1. Access existing database and locate required record 2. Create simple query and retrieve required information 3. Develop query with multiple criteria and retrieve required information 4. Apply filters and access information 5. Refine queries to more precisely retrieve information 6. Select data and sort according to information retrieval requirements

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualise the unit of competence and provide a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Hardware	variables may include but are not limited to personal computers and networked systems
Document	variables may include but are not limited to: established files and new documents
Software	variables may include but are not limited to: commercial software applications; organisational specific software
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Organisational	variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines
Operating Systems	Command line and Graphical User Interface
Disks	may include but are not limited to: diskettes, CDs, zip disks
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements
Workplace environment	May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organisation
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates
Standards and procedures	Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost

UNIT

ICAITU131A Operate database application

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to design and develop a simple database using a standard database package the candidate must add data, use queries, create forms and reports

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and could therefore be assessed in a holistic manner with ICAITU129A Operate a word processing application, ICAITU130A Operate a spreadsheet application, ICAITU128A Operate a personal computer, ICAITU132A Operate a presentation package, ICAITU133A Send and retrieve information over the internet using browsers and email.

Underpinning skills and knowledge**Underpinning Knowledge includes:**

- General OH&S principles and responsibilities
- Basic technical terminology in relation to reading help files and prompts
- Logging procedures relating to accessing a PC
- Organisational benchmarks for keyboarding
- Basic technical terminology in relation to reading help files and prompts
- Security, viruses, privacy legislation, copyright
- Basic database design
- Types of software

Underpinning Skills includes:

- Basic analysis in relation to a limited range of routine areas
- Low level decision making in relation to a limited range of routine areas
- Reading and writing at a level where basic workplace documents are understood
- Communication is clear and precise
- Interpretation of user manuals

EVIDENCE GUIDE

Resources

Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Candidate will need access to a printer.

To demonstrate this unit of competence the candidate will require access to documents detailing Organisational style guide/ policy

Assessment of this unit of competence could include review of documents developed by the candidate. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence

Consistency

Competence in this unit may be assessed using formative assessment to ensure consistency of performance in a range of contexts.

Simulation must reflect workplace practices

Context

Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.

This competency can be assessed in the workplace or in a simulated environment.

UNIT

ICAITU131A Operate database application

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	Nil	1	Nil	1	1	1

UNIT	ICAITU132A Operate a presentation package
FIELD	Use
DESCRIPTION	This unit defines the competency required to operate presentation applications and perform basic operations
RELATED COMPETENCY STANDARDS	This unit of competence is a fundamental skill required for using IT in any environment. Other fundamental units of competence include ICAITU129A Operate a word processing application, ICAITU130A Operate a spreadsheet application, ICAITU131A Operate a database application, ICAITU128A Operate a personal computer, ICAITU133A Send and retrieve information over the internet using browsers and email.

ELEMENT	PERFORMANCE CRITERIA
1. Create presentations	<ol style="list-style-type: none"> 1. Create a simple design for a presentation according to organisational requirements 2. Open presentations and add text and symbols 3. Use existing styles within a presentation 4. Use presentation templates / master slide to create a presentation 5. Use various tools including help, search and replace, spell check, undo and simple formatting tools 6. Add, select, copy, delete or move text, images and graphics within the presentations 7. Save presentation to correct directory / folder
2. Customise basic settings	<ol style="list-style-type: none"> 1. Adjust page display modes and size to meet user requirements and / or special needs 2. Modify toolbar to meet user and document uses 3. Ensure font type, size and colour is appropriate for the purpose of the presentation 4. View multiple slides at once

UNIT	ICAITU132A Operate a presentation package
3. Format presentation	<ol style="list-style-type: none"> 1. Use organisational charts, charts, bulleted lists and modify as required 2. Add objects (images and graphics) and manipulate to meet presentation purpose 3. Import objects such as tables and modify for presentation purposes 4. Modify slide layout including text and colours to meet presentation requirements 5. Use formatting tools (such as tabs, cut, paste, indents, bookmarks, hyperlinks, borders, lists) as required within the presentation 6. Duplicate slides within and/ or across presentations 7. Reorder the sequence of slides and/ or delete for presentation purposes 8. Save presentation in another format and in a format for posting to a web site 9. Save and close presentation to hard disk and/or disk
4. Add slide show effects	<ol style="list-style-type: none"> 1. Incorporate preset animation and multimedia effects in to presentation as required to enhance the presentation 2. Change preset animation effects according to presentation purposes to create a cohesive presentation 3. Add slide transition effects to presentation to ensure smooth progression though the presentation 4. Test slide show effects for overall effect 5. Use onscreen navigation tools to start and stop slide show or move between different slides as required
6. Print presentation and notes	<ol style="list-style-type: none"> 1. Select appropriate print format (overheads, handouts etc) for slide presentation 2. Select preferred slide orientation (portrait, landscape) 3. Add notes, slides numbers and spell check 4. Preview slides in the required formats (overheads, notes, etc) 5. Print slides in the required formats

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualise the unit of competence and provide a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Hardware	variables may include but are not limited to personal computers and networked systems
Document	variables may include but are not limited to: established files and new documents
Presentation packages	May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works or other similar applications

UNIT	ICAITU132A Operate a presentation package
-------------	--

Cultural understanding	<p>Cultural understanding requires the capacity to apply an understanding of cultures when carrying out workplace tasks, including commitment to organisational goals such as quality, safety, efficiency, teamwork, security, environmental protection, customer service and personal development, and interacting with people from widely different backgrounds and cultures in the achievement of common work goals.</p> <ul style="list-style-type: none"> • Carries out established processes • Operates in accordance with existing company and statutory requirements • Makes judgements of quality using given criteria
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Organisational	variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines
Operating Systems	Command line and Graphical User Interface
Disks	may include but are not limited to: diskettes, CDs, zip disks
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements
Workplace environment	May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organisation
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates
Standards and procedures	Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence	Assessment must confirm the ability to create, format and prepare presentations for distribution and display	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and could therefore be assessed in a holistic manner with include ICAITU129A Operate a word processing application, ICAITU130A Operate a spreadsheet application, ICAITU131A Operate a database application, ICAITU128A Operate a personal computer, ICAITU133A Send and retrieve information over the internet using browsers and email.	
Underpinning skills and knowledge	<p>Underpinning Knowledge includes:</p> <ul style="list-style-type: none"> • General OH&S principles and responsibilities • Basic understanding of using systems, technical • Basic technical terminology in relation to reading help files and prompts • Logging procedures relating to accessing a PC • Organisational benchmarks for keyboarding • Basic technical terminology in relation to reading help files and prompts • Security, viruses, privacy legislation, copyright • Different types of presentations, formal, informal, audience types 	<p>Underpinning Skills includes:</p> <ul style="list-style-type: none"> • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals

UNIT	ICAITU132A Operate a presentation package
-------------	--

Resources

Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Candidate will need access to a printer.

To demonstrate this unit of competence the candidate will require access to documents detailing:

- Organisational style guide/ policy

Assessment of this unit of competence could include review of documents developed by the candidate. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence

Consistency

Competence in this unit may be assessed using formative assessment to ensure consistency of performance in a range of contexts.

Simulation must reflect workplace practices.

Context

Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.

This competency can be assessed in the workplace or in a simulated environment.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	2	1	Nil	Nil	1	1

UNIT	ICAITU133A Send and retrieve information over the Internet using browsers and email
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to complete basic web search tasks and send and receive emails with attachments
--------------------	---

RELATED COMPETENCY STANDARDS	This unit of competence is a fundamental skill required for using IT in any environment. Other fundamental units of competence include ICAITU129A Operate a word processing application, ICAITU130A Operate a spreadsheet application, ICAITU131A Operate a database application, ICAITU132A Operate a presentation package, ICAITU128A Operate a personal computer
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Access the internet	<ol style="list-style-type: none"> 1. Open browser and assign a Home Page/ Start Page through setting basic preferences 2. Adjust the display/view modes to suit personal requirements 3. Modify toolbar to meet user and browsing needs 4. Access a particular site and retrieve data 5. Load or not load images depending on modem speed, computer and browser capabilities 6. Open a URL to obtain data and browse links
2. Search internet	<ol style="list-style-type: none"> 1. Open search engines and define search requirements 2. Use a range of search parameters (key words, logical operators) 3. Save search results and present as a report according to the information required 4. Create bookmarks for required web page and save in associated bookmark folder 5. Modify page set up options and print web page or the required information 6. Shut down and exit browser

UNIT	ICAITU133A Send and retrieve information over the Internet using browsers and email
3. Send and organise messages	<ol style="list-style-type: none"> 1. Open mail inbox for specific user and create a new mail message 2. Complete each field (address to, subject etc) and add text to message according to organisational guidelines on email usage and email content 3. Add auto signature and attach files in the required format 4. Determine message priority, spell check, copy and delete text and send 5. Reply to received messages and forward as appropriate 6. Open and save attachment to relevant directory/folder, create new folder if necessary 7. Search for messages and mark or delete as necessary 8. Sort (save in folders/directories, archive, highlight etc) and delete unwanted messages
4. Create an address book	<ol style="list-style-type: none"> 1. Add mail address to address book and delete unnecessary addresses 2. Update address book with incoming mail addresses 3. Create an address list and send out mail to list 4. Create different folders for different categories of addresses

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualise the unit of competence and provide a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Hardware	variables may include but are not limited to personal computers and networked systems
Document	variables may include but are not limited to: established files and new documents
Presentation packages	May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works or other similar applications
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Organisational	variables may include but are not limited to: personal use of emails and internet access, content of emails, downloading information and accessing particular sites
Operating Systems	Command line and Graphical User Interface
Disks	May include but are not limited to: diskettes, CDs, zip disks
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements

UNIT	ICAITU133A Send and retrieve information over the Internet using browsers and email
-------------	--

Workplace environment	May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organisation
Documentation and Reporting	Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates
Standards and procedures	Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
Cultural understanding	<p>Cultural understanding requires the capacity to apply an understanding of cultures when carrying out workplace tasks, including commitment to organisational goals such as quality, safety, efficiency, teamwork, security, environmental protection, customer service and personal development, and interacting with people from widely different backgrounds and cultures in the achievement of common work goals.</p> <ul style="list-style-type: none"> • Carries out established processes • Operates in accordance with existing company and statutory requirements • Makes judgements of quality using given criteria

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to browse the internet, search for information, send and receive emails and organise the mail browser applications	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and could therefore be assessed in a holistic manner with ICAITU129A Operate a word processing application, ICAITU130A Operate a spreadsheet application, ICAITU131A Operate a database application, ICAITU132A Operate a presentation package, ICAITU128A Operate a computer.	
Underpinning skills and knowledge	<p>Underpinning Knowledge includes:</p> <ul style="list-style-type: none"> • General OH&S principles and responsibilities • Makeup and structure of web addresses • Basic technical terminology in relation to reading help files and prompts • Logging procedures relating to accessing a PC • Modem speed, traffic loads in relation to times of accessing the internet • Evaluating and assessing the authority of information • Organisational guidelines on internet and email usage, webettique • Security, viruses, privacy legislation, copyright • Different types of search engines (meta etc) • The different types of messages that occur (error messages, updates, plug ins etc) • Types of software 	<p>Underpinning Skills includes:</p> <ul style="list-style-type: none"> • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals • Cultural understanding

UNIT	ICAITU133A Send and retrieve information over the Internet using browsers and email
-------------	--

Resources	<p>Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.</p> <p>Candidate will need access to a printer.</p> <p>To demonstrate this unit of competence the candidate will require access to documents detailing:</p> <ul style="list-style-type: none"> • Organisational style guide/ policy • Organisational policies on internet and e-mail usage <p>Assessment of this unit of competence could include review of documents developed by the candidate. Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence</p>
Consistency	<p>Competence in this unit may be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulation must closely reflect workplace practices</p>
Context	<p>Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.</p> <p>This competency can be assessed in the workplace or in a simulated environment</p>

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	Nil	Nil	1	1

UNIT	ICPMM11bA Identify components of multimedia
FIELD	Use
DESCRIPTION	This unit describes the competency required to identify components of multimedia
RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.

ELEMENT	PERFORMANCE CRITERIA
1. Identify the electronic components of multimedia	<ol style="list-style-type: none"> 1. Computer technology including CPU, ROM, RAM, storage devices, monitors and input devices relating to multimedia are identified and their functions explained 2. Analogue and digital devices relevant to multimedia are identified and the formats distinguished 3. The properties of digitised data are correctly defined to specifications 4. Issues relating to rapid technological change including electronic media and digital photography are discussed to deliver specific outcomes
2. Explore the scope of multimedia	<ol style="list-style-type: none"> 1. The scope of multimedia for the particular project is explored and explained relevant to the industry sector 2. The authoring role of a multimedia project is identified and correctly explained 3. The components of various multimedia projects including text, graphics, photography, typography, sound, animation and video are correctly broken down into the component media 4. The use of multimedia and its relationship to the project for delivering a specified outcome is described 5. The difference between passive and interactive multimedia is explored for application to the project 6. The features of contemporary multimedia software relevant to text, graphics, photography, typography, sound, animation and video are identified to ensure application to outcome is relevant 7. The use of multimedia with respect to a variety of outcomes including newspapers, magazines, traditional sheetfed, digital printing, Internet WWW page, digital bill boards and CD-ROM are identified and the suitability of multimedia for such outcomes is discussed with client

UNIT		ICPMM11bA Identify components of multimedia
3. Assess the features and functions of multimedia operating systems	<ol style="list-style-type: none"> 1. The distinguishing features of contemporary operating systems including DOS, UNIX, OS/2, VMS, Macintosh, Windows systems and emerging systems are correctly identified 2. The disk formats of operating systems are correctly identified 3. Functions and structures of operating systems are correctly identified 4. Compression software appropriate to the operating system is identified 	
4. Outline the role of multimedia	<ol style="list-style-type: none"> 1. The attributes of a multimedia generalist are defined in relation to the industry sector 2. The attributes of multimedia specialisations are defined in relation to the industry sector 3. The importance of resolution is examined relevant to the mode of multimedia presentation 	

RANGE OF VARIABLES	
VARIABLE	SCOPE
Hardware	Variables may include but are not limited to: personal computers, networked systems, personal organisers, communications equipment; peripherals may include, printers, scanners, tape cartridges, speakers, multi media kits; keyboard equipment may include mouse, touch pad, keyboard, pens
Technical instructions	Technical instructions for use of specific computer hardware.
Occupational Health and Safety	Guidelines relate to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations
Organisational	Variables may include but are not limited to: security procedures; Occupational Health and Safety procedures; maintenance procedures
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Quality process	Some organisations may be quality certified and have well documented standards for addressing quality while others will not.

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment confirms the ability to identify the digital components of multimedia and explain their distinguishing features and functions
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical units.

UNIT	ICPMM11bA Identify components of multimedia
-------------	--

Underpinning skills and knowledge

Underpinning knowledge

- General knowledge of electronic components of multimedia
- General knowledge of the scope of multimedia
- General knowledge of the features and functions of multimedia operating systems
- Broad general knowledge of the role of multimedia
- Broad knowledge base of quality assurance practices
- Broad general knowledge of the client business domain
- A broad knowledge base incorporating current industry multimedia products and procedures with broad knowledge of general features and capabilities and detailed knowledge in some areas

Underpinning skills

- Project planning skills in relation to scope, time, cost, quality, communications
- Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures
- Financial modelling skills for identifying, analysing and evaluating a range of different solutions
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Problem solving skills for a defined range of predictable problems
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICPMM13cA Author a multimedia sequence
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to author a multimedia sequence
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify the elements of multimedia	<ol style="list-style-type: none"> 1. The elements of multimedia are correctly defined for an integrated system 2. The uses of multimedia elements are described for an integrated system 3. Levels of interactivity are identified including passive, interactive and adaptive multimedia to deliver a specified outcome
2. Identify the scope of authoring software	<ol style="list-style-type: none"> 1. A range of contemporary multimedia authoring software is identified as appropriate to a range of project outcomes 2. Features and uses of contemporary commercial authoring software are distinguished as relevant to specified project outcomes 3. The appropriateness of specific contemporary commercial authoring software for a range of multimedia uses is assessed relevant to specified project outcomes
3. Use authoring software	<ol style="list-style-type: none"> 1. An authoring program is selected, accessed and executed to deliver a specified outcome 2. An existing file is opened and run for a specified job 3. The tools and features of the particular software in use are demonstrated as relevant to authoring 4. A new file involving a sequence of multimedia elements is created for a specified job 5. A simple program structure is created for a specified job and prepared elements are incorporated into the structure sequence 6. Passive and interactive samples of sequences are created and demonstrated for specified outcomes

UNIT	ICPMM13cA Author a multimedia sequence
------	---

4. Create a multimedia presentation	<ol style="list-style-type: none"> 1. A multimedia script identifying appropriate elements and sequencing is prepared 2. A storyboard is prepared and assessed for practicality 3. A program structure for the storyboard is created for a specified outcome 4. Relevant multimedia elements are identified and assembled in sequence to deliver the desired outcome 5. Methods for obtaining (purchasing) multimedia elements suitable for inclusion in a multimedia presentation are identified to deliver the desired outcome 6. The multimedia sequence is tested and then run as a presentation 7. File formats to save each multimedia asset are identified for a specified job
-------------------------------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	Multimedia authoring is undertaken in the workplace in consultation with the supervisor to ensure that correct skills and procedures are used
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	<p>The underlying skills of multimedia authoring should be transferable across the printing industry and associated sectors</p> <p>Use authoring software to create TWO multimedia sequences containing both passive and interactive elements, according to job specifications and the listed performance criteria.</p> <p>Demonstrate an ability to find and use information relevant to the task from a variety of information sources.</p>

UNIT	ICPMM13cA Author a multimedia sequence
-------------	---

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.

Underpinning skills and knowledge

Underpinning knowledge

- Detailed knowledge of the elements of multimedia
- Detailed knowledge of the scope of authoring software
- Detailed knowledge of authoring software usage
- Detailed knowledge information sources
- General OH&S principles and responsibilities
- Basic understanding of operating systems software and system tools
- Broad knowledge base of vendor product directions
- Broad knowledge base of vendor applications and their features
- Basic understanding of troubleshooting
- Broad knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations

Underpinning skills

- Ability to put together a multimedia presentation
- Basic analysis skills in relation to normal routine work processes
- Detailed skills in using applications features
- Basic skills in interpreting technical information
- Problem solving skills in known areas during normal routine work processes
- Plain English literacy and communication skills in relation to dealing with clients and team members

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM15dA Develop a multimedia script
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to develop a multimedia script
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify and describe multimedia script formats and processes	<ol style="list-style-type: none"> 1. Algorithmic and documentation styles are identified and their features are distinguished 2. Efficiencies and enhancements are identified using algorithms and documentation 3. A multimedia page is constructed incorporating algorithms with documentation
2. Use scripting techniques to create a multimedia production script	<ol style="list-style-type: none"> 1. A scripting language and its components is identified which involves I/O operations, clip and file importation, and keyboard commands 2. A script is created and edited using object based script language styles 3. Events sequencing is documented using a flow chart 4. Conditionals and loops are constructed using the scripting language 5. A run time is produced and documented for a specified job 6. The script is saved in the relevant file format for a specified job

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	Working independently but consulting others as required
Types of systems	Multimedia systems used in the pre-press sector and associated sectors with which a pre-press organisation may be required to work
Hardware	Variables may include but are not limited to LANs, WANS
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

UNIT	ICPMM15dA Develop a multimedia script
-------------	--

File system	May involve multiple or single servers, multiple or single logical disks and complex directory or folder structures
Operating system	Each product will have different functionality and ways of operating. Third party products may also be used in administration.
Back-up	May involve simple, single tape unit back-up to more comprehensive and complex back-up facilities across the network.
Software	Variables may include but are not limited to: commercial system software; organisational specific systems software
IT components	Can include hardware, software and communications packages

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to produce multimedia scripts incorporating several sequences and a range of different elements according to job specifications and the listed performance criteria.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Detailed knowledge of multimedia script formats and processes • Detailed knowledge of scripting language and components • Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas • Broad knowledge base incorporating theoretical concepts of software metrics development • Broad knowledge base incorporating theoretical concepts of programming languages, procedural languages (two or more) and OO languages (three or more) • Detailed knowledge of information sources 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Data modelling skills for identifying, analysing and evaluating a range of different solutions • Problem solving skills for a defined range of unpredictable problems involving participation in the development of technical solutions • Design and analysis skills for identifying, analysing and evaluating a range of different solutions • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment	

UNIT

ICPMM15dA Develop a multimedia script**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM21cA Capture a digital image
FIELD	Use
DESCRIPTION	This unit describes the competency required to capture a digital image
RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.

ELEMENT	PERFORMANCE CRITERIA
1. Assess digital camera qualities	<ol style="list-style-type: none"> 1. Camera software compatibility with hardware systems is assessed and the appropriate software is selected for the job 2. Pixel resolution of the camera is matched to the required quality and resolution of outcome 3. The RAM capacity of the camera is checked to be appropriate to the number of images required to be captured 4. Shutter speed, focal lengths and camera feature modes (flash, scrollage, icon menu, close-up, wide angle and telephoto capacity etc.) are assessed suitable to the quality and use of photographic image required 5. Lithium batteries are handled and stored in accordance with occupational health and safety requirements
2. Photograph and upload a digital image	<ol style="list-style-type: none"> 1. The digital camera is loaded and operated in accordance with manufacturer specifications appropriate to the quality of image to be photographed 2. The IBM-PC or Macintosh card interface / disk is uploaded onto the relevant computer and the image saved on hard disk 3. Photographic image files are created and stored on the computer in accordance with software procedures 4. Photographic images are enhanced, cropped and altered electronically to deliver the required image 5. Photographic images are checked for fitness of purpose to comply with the brief specifications 6. Photographic images are assessed fit for the relevant delivery mode (print, CD-ROM, etc.) and delivered appropriately

UNIT	ICPMM21cA Capture a digital image
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	A digital photographic image is processed in the workplace in consultation with the supervisor to ensure that correct skills and procedures are used
Hardware	Variables may include but are not limited to LANs, WANs
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
File system	May involve multiple or single servers, multiple or single logical disks and complex directory or folder structures
Operating system	Each product will have different functionality and ways of operating. Third party products may also be used in administration.
Back-up	May involve simple, single tape unit back-up to more comprehensive and complex back-up facilities across the network.
Software	Variables may include but are not limited to: commercial system software; organisational specific systems software
IT components	Can include hardware, software and communications packages

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to assess the capacity of, and operate, a digital camera to upload and process THREE digital images using industry hardware and software to deliver a designated quality of image outcome
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.

UNIT	ICPMM21cA Capture a digital image
-------------	--

Underpinning skills and knowledge

Underpinning knowledge

- General OH&S principles and responsibilities
- Detailed understanding of using system software and system tools
- Broad knowledge base of vendor product directions
- Broad general knowledge of the client business domain
- Broad knowledge base of quality assurance practices
- Broad general knowledge of change management systems
- Broad knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations
- Detailed knowledge of information sources

Underpinning skills

- Ability to use a digital camera
- Ability to upload and processing digital images using IBM-PC and/or Macintosh
- Analysis skills in relation to routine and non-routine work processes
- Project planning skills in relation to set benchmarks and identified scope
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Problem solving skills in non-routine work processes
- Plain English literacy and communication skills in relation to dealing with clients and team members
- Algorithms skills in relation to analysis, evaluation and identification of solutions

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM41cA Incorporate text into multimedia presentations
FIELD	Use
DESCRIPTION	This unit describes the competency required to incorporate text into multimedia presentations
RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.

ELEMENT	PERFORMANCE CRITERIA
1. Use multimedia text software	<ol style="list-style-type: none"> Appropriate software is assessed and selected for the required medium (hard copy or screen) Entering and exiting the selected software are demonstrated and the tools and features of the program used correctly Editing and manipulating text are demonstrated and the tools and features of the program used correctly Text is saved and retrieved using the designated file formats
2. Create multimedia text	<ol style="list-style-type: none"> Text that incorporates the principles of typography is created using the designated software Advanced issues of electronic fonts including Multiple Masters, font types and True Type are identified and discussed Text is edited (enhanced and amended) and saved using the designated software The elements of text are integrated into a designated multimedia sequence Text is tested and run as part of a multimedia presentation Text is published electronically appropriate for the job to be undertaken

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	Multimedia text is created in the workplace in consultation with the supervisor to ensure that correct skills and procedures are used
Hardware	Variables may include but are not limited to LANs, WANs
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Documentation and Reporting	Audit trails, naming standards, version control

UNIT	ICPMM41cA Incorporate text into multimedia presentations
-------------	---

OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
File system	May involve multiple or single servers, multiple or single logical disks and complex directory or folder structures
Operating system	Each product will have different functionality and ways of operating. Third party products may also be used in administration.
Back-up	May involve simple, single tape unit back-up to more comprehensive and complex back-up facilities across the network.
Software	Variables may include but are not limited to: commercial system software; organisational specific systems software
IT components	Can include hardware, software and communications packages

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to produce TWO different multimedia sequences incorporating text according to job specifications and the listed performance criteria.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Detailed knowledge of multimedia text software • Detailed knowledge of the principles of on screen typography and electronic publishing • Detailed knowledge of information sources • General OH&S principles and responsibilities • Detailed understanding of using system software and system tools • Broad knowledge base of vendor product directions • Broad general knowledge of the client business domain • Broad knowledge base of quality assurance practices • Broad general knowledge of change management systems • Broad knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Ability to create multimedia text • Analysis skills in relation to routine and non-routine work processes • Project planning skills in relation to set benchmarks and identified scope • Teamwork skills involve responsibility of self and contribution solutions and goals of a non-routine or contingency nature. • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Problem solving skills in non-routine work processes • Plain English literacy and communication skills in relation to dealing with clients and team members
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	

UNIT

ICPMM41cA Incorporate text into multimedia presentations**Context**

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM42cA Incorporate 2D graphics into multimedia presentations
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to incorporate 2D graphics into multimedia presentations
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Work with digital imaging	<ol style="list-style-type: none"> 1. The correct terminology for digital imaging is employed within a specified context 2. The use of a range of graphic file formats, file management and transfer systems are demonstrated correctly including storing, archiving, importing, exporting and transferring digital images as electronic files 3. Contemporary Vector and bitmapped graphic editing software programs are identified and their features explained 4. The properties of Vector and bitmapped images are identified and their features explained 5. Conversion from bitmapped to Vector image and vice versa are demonstrated for a specified job 6. Scanning devices are correctly operated to convert continuous tone or line image to digitised data with attention to tonal detail, halftones, resolution, and image correction
2. Use 2D multimedia graphics software	<ol style="list-style-type: none"> 1. Appropriate 2D software is assessed and selected for the required medium (hard copy or screen) 2. Entering and exiting the selected graphics software are demonstrated and the tools and features of the program used correctly 3. Editing and manipulating graphics are demonstrated and the tools and features of the program used correctly 4. Graphics are saved and retrieved using the designated file formats

UNIT	ICPMM42cA Incorporate 2D graphics into multimedia presentations
3. Create 2D multimedia graphic designs	<ol style="list-style-type: none"> 1. A design brief is assessed for the appropriate digital imaging solution 2. Graphics that incorporate the principles of design are created using the designated software to produce bitmapped or Vector graphics and digital artwork 3. 2D digital artwork techniques are demonstrated including the correct use of painting, editing and pallets 4. Digital collages and montages are created by adjusting image mode and resolution, modifying image using filters, selecting the correct colour mode for the output 5. Graphic designs are edited, (enhanced and amended) using accurate selection techniques, special effects, cropping and resizing of images, and saved using the designated software 6. The elements of graphic design are integrated into a designated multimedia sequence
4. Present 2D Digital artwork	<ol style="list-style-type: none"> 1. Graphics are tested and run as part of a multimedia presentation 2. Digital images are professionally mounted for presentation using the mount cutter 3. Graphics are titled and laminated to presentation size 4. Non-colour-fast digital artwork is presented under screened glass or perspex 5. Images are published electronically if required

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	Multimedia graphic design is undertaken in the workplace in consultation with the supervisor to ensure that correct skills and procedures are used
Hardware	Variables may include but are not limited to LANs, WANs
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
File system	May involve multiple or single servers, multiple or single logical disks and complex directory or folder structures
Operating system	Each product will have different functionality and ways of operating. Third party products may also be used in administration.
Back-up	May involve simple, single tape unit back-up to more comprehensive and complex back-up facilities across the network.
Software	Variables may include but are not limited to: commercial system software; organisational specific systems software
IT components	Can include hardware, software and communications packages

UNIT	ICPMM42cA Incorporate 2D graphics into multimedia presentations
-------------	--

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to produce TWO different multimedia sequences incorporating 2D graphics according to job specifications and the listed performance criteria.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Detailed knowledge of the principles of digital imaging • Detailed knowledge of principles of 2D multimedia graphic designs • Broad knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations • Technical requirements for preparing artwork for multimedia output • Recognition and how to use and apply different technologies for design purposes • Broad knowledge base incorporating theoretical concepts of multimedia software packages • General knowledge of electronic components of multimedia • General knowledge of the scope of multimedia • General knowledge of the features and functions of multimedia operating systems • Broad general knowledge of the role of multimedia • Broad knowledge base of quality assurance practices • Detailed knowledge of information sources 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Ability to use file formats, file management and transfer systems • Ability to use digital collages and montages and other presentation techniques • Project planning skills in relation to scope, time, cost, quality, communications • Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures • Financial modelling skills for identifying, analysing and evaluating a range of different solutions • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Problem solving skills for a defined range of predictable problems
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment	

UNIT

ICPMM42cA Incorporate 2D graphics into multimedia presentations**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM43cA Incorporate digital photography into multimedia presentations
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to incorporate digital photography into multimedia presentations
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Use a digital camera	<ol style="list-style-type: none"> 1. A digital camera is operated correctly with consideration of focus and exposure to capture a digital image successfully 2. Entering and exiting the selected digital image software are demonstrated and the tools and features of the program used correctly 3. Editing and manipulating photographs are demonstrated and the tools and features of the program used correctly 4. Digital photographs are saved and retrieved using the designated file formats
2. Incorporate digital photography into a multimedia sequence	<ol style="list-style-type: none"> 1. Graphics that incorporate the principles of design are created using the designated software 2. Digital photographs are edited (enhanced and amended) and saved using the designated software 3. Digital photographs are integrated into a designated multimedia sequence 4. The digital photographic outcomes are evaluated and interpreted appropriately for the
3. Create a collage of digital photography and 2D graphics	<ol style="list-style-type: none"> 1. Digital collages and montages are created by adjusting image mode and resolution, modifying image using filters, selecting the correct colour mode for the output

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	Digital photography is undertaken in the workplace in consultation with the supervisor to ensure that correct skills and procedures are used
Hardware	Variables may include but are not limited to LANs, WANs
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Documentation and Reporting	Audit trails, naming standards, version control

UNIT	ICPMM43cA Incorporate digital photography into multimedia presentations
-------------	--

OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
File system	May involve multiple or single servers, multiple or single logical disks and complex directory or folder structures
Operating system	Each product will have different functionality and ways of operating. Third party products may also be used in administration.
Back-up	May involve simple, single tape unit back-up to more comprehensive and complex back-up facilities across the network.
Software	Variables may include but are not limited to: commercial system software; organisational specific systems software
IT components	Can include hardware, software and communications packages

EVIDENCE GUIDE

Critical aspects of evidence	Assessment confirms the ability to produce TWO different multimedia sequences incorporating digital photography according to job specifications and the listed performance criteria.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Detailed knowledge of the principles of digital photography • Detailed knowledge of selected digital image software • Detailed knowledge of the principles of design • Detailed knowledge of information sources • Technical requirements for preparing artwork for multimedia output • Recognition and how to use and apply different technologies for design purposes • Broad knowledge base incorporating theoretical concepts of design principles • Broad knowledge base incorporating theoretical concepts of multimedia software packages • General knowledge of electronic components of multimedia • General knowledge of the scope of multimedia 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Enhance digital photography • Project planning skills in relation to scope, time, cost, quality, communications • Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Problem solving skills for a defined range of predictable problems
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	

UNIT	ICPMM43cA Incorporate digital photography into multimedia presentations
-------------	--

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICPMM44cA Incorporate audio into multimedia presentations
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to incorporate audio into multimedia presentations
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify and describe formats of digital audio	<ol style="list-style-type: none"> 1. The features of analogue and digital audio are distinguished for a range of uses 2. Amplitude, sound waves, frequency, mono and stereo are correctly defined and their functions explained 3. Contemporary digital audio formats are identified and explained relevant to a defined outcome 4. Data rates for major digital sources are detailed relevant to a defined outcome 5. Methods for saving and producing digital audio outputs are described relevant to a range of sources and destinations 6. Sampling techniques and sources for sampling digital audio are demonstrated for a defined outcome 7. MIDI technology is explored and its uses explained
2. Use digital audio software	<ol style="list-style-type: none"> 1. Appropriate digital audio software is assessed and selected for the job 2. Entering and exiting the selected software are demonstrated and the tools and features of the program used correctly 3. Editing and manipulating audio are demonstrated and the tools and features of the program used correctly 4. Sounds are saved and retrieved using the designated file formats

UNIT	ICPMM44cA Incorporate audio into multimedia presentations
-------------	--

3. Design and edit digital audio	<ol style="list-style-type: none"> 1. The editing of single and multiple audio frames is demonstrated relevant to a defined outcome 2. Multiple tracks of digital audio are joined in accordance with specifications 3. Digital effects are employed to modify and integrate digital audio tracks in accordance with specifications 4. Time encoding is applied to single and multiple edited digital audio tracks in accordance with specifications 5. Storybook design is applied to the production of digital audio sequences to an audio track is inserted into a multimedia production sequence in accordance with specifications
4. Construct a digital audio track	<ol style="list-style-type: none"> 1. Techniques for hooking sounds are identified and correctly explained 2. Noise on sound recordings is eliminated at source and/or treated 3. Special effects and mixing techniques are used on an audio track in accordance with specifications 4. Sequencers are used to create digital audio tracks in accordance with specifications 5. MIDI and sound cards are employed to create digital audio in accordance with specifications 6. An audio track is produced using appropriate track construction software and hardware 7. Audio tracks are saved into the appropriate file formats

RANGE OF VARIABLES	
VARIABLE	SCOPE

Degree of autonomy	Multimedia audio is undertaken in the workplace in consultation with the supervisor to ensure that correct skills and procedures are used
Hardware	Variables may include but are not limited to LANs, WANs
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
File system	May involve multiple or single servers, multiple or single logical disks and complex directory or folder structures
Operating system	Each product will have different functionality and ways of operating. Third party products may also be used in administration.
Back-up	May involve simple, single tape unit back-up to more comprehensive and complex back-up facilities across the network.

UNIT		ICPMM44cA Incorporate audio into multimedia presentations	
Software	Variables may include but are not limited to: commercial system software; organisational specific systems software		
IT components	Can include hardware, software and communications packages		
EVIDENCE GUIDE			
Critical aspects of evidence	Assessment must confirm the ability to produce TWO different multimedia sequences incorporating audio elements according to job specifications and the listed performance criteria.		
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.		
Underpinning skills and knowledge	Underpinning knowledge	Underpinning skills	
	<ul style="list-style-type: none"> • Detailed knowledge of the principles of analog and digital audio • Detailed knowledge of contemporary digital audio formats • Knowledge of methods for saving and producing digital audio outputs • Detailed knowledge of the principles of editing audio tracks • Technical requirements for preparing artwork for multimedia output • Recognition and how to use and apply different technologies for design purposes • Broad knowledge base incorporating theoretical concepts of design principles • Broad knowledge base incorporating theoretical concepts of multimedia software packages • Detailed knowledge of information sources 	<ul style="list-style-type: none"> • Analysis skills in relation to routine and non-routine work processes • Project planning skills in relation to set benchmarks and identified scope • Teamwork skills involve responsibility of self and contribution solutions and goals of a non-routine or contingency nature. • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas • Problem solving skills in non-routine work processes • Plain English literacy and communication skills in relation to dealing with clients and team members 	
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.		
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts		
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment		

UNIT

ICPMM44cA Incorporate audio into multimedia presentations

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	1	1	1	2	2

UNIT	ICPMM45cA Incorporate animation into multimedia presentations
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to incorporate animation into multimedia presentations
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify and describe formats of digital animation	<ol style="list-style-type: none"> 1. A range of computer assisted animation techniques and software are identified and distinguishing features examined 2. Contemporary digital animation software is selected appropriate to a range of given outcomes 3. Single and multiple frame software for creating and editing digital animation are examined for a specified outcome 4. Methods for joining multiple frames of animation are explained for a specified outcome 5. Backgrounds (static and moving) for an animated sequence are examined and selected to be appropriate for the job 6. Alpha channels for compositing digital animation are explained appropriate for the job to be undertaken 7. The formats employed to create a given 2D animated sequence are analysed and discussed appropriate for the job to be undertaken
2. Use digital animation software	<ol style="list-style-type: none"> 1. Appropriate digital animation software is assessed and selected for the job 2. Entering and exiting the selected digital animation software are demonstrated and the tools and features of the program used correctly 3. Editing and manipulating digital animation are demonstrated and the tools and features of the program used correctly 4. Animation is saved and retrieved using the designated file formats

UNIT		ICPMM45cA Incorporate animation into multimedia presentations
3. Design and edit digital animation	<ol style="list-style-type: none"> 1. Digital animation software is selected appropriate to the required outcome 2. Line and polygon constructions are created using the selected software 3. Rigid and non-rigid objects are constructed and animated against a static background 4. Rigid and non-rigid objects are combined into a single animated sequence 5. Complex animated movements are created and joined in sequence 6. Moving backgrounds are created and joined with rigid and non-rigid objects in sequence 7. Techniques of animation are used including motion blur and object exaggeration 8. Time stamping techniques are applied to the animation frames 9. Digital animation is saved using the appropriate file techniques 	
4. Present a digital animation sequence	<ol style="list-style-type: none"> 1. Digital animation is tested and combined with other digital imaging, sound and/or video to create a multimedia sequence 2. The multimedia sequence including animation is saved and presented 	

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	Digital animation is undertaken in the workplace in consultation with the supervisor to ensure that correct skills and procedures are used
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

UNIT	ICPMM45cA Incorporate animation into multimedia presentations
-------------	--

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to produce TWO different multimedia sequences incorporating animation according to job specifications and the listed performance criteria.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.	
Underpinning skills and knowledge	Underpinning knowledge <ul style="list-style-type: none"> Detailed knowledge of digital animation formats Detailed knowledge of computer assisted animation techniques Detailed knowledge of the principles of digital animation design Technical requirements for preparing artwork for multimedia output Recognition and how to use and apply different technologies for design purposes Broad knowledge base incorporating theoretical concepts of design principles Broad knowledge base incorporating theoretical concepts of multimedia software packages Detailed knowledge of information sources 	Underpinning skills <ul style="list-style-type: none"> Basic analysis skills in relation to normal routine work processes Detailed skills in using applications features Basic skills in interpreting technical information Problem solving skills in known areas during normal routine work processes Plain English literacy and communication skills in relation to dealing with clients and team members Project planning skills in relation to scope, time, cost, quality, communications Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment	

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM46cA Incorporate video into multimedia presentations
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to incorporate video into multimedia presentations
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify and describe formats of digital video	<ol style="list-style-type: none"> 1. A range of video software is identified and distinguishing features examined 2. Contemporary video software is selected appropriate to a range of given outcomes 3. Limiting factors of computer hardware on video production are identified for a specified job 4. The digital medium for video is explained relevant to the industry sector 5. Differences of image quality and image size are demonstrated to deliver the desired outcome 6. Data input, processing and output are explained relevant to video 7. The formats employed to create a given computer video sequence are analysed and discussed for a specified outcome
2. Use digital video software	<ol style="list-style-type: none"> 1. Appropriate digital video software is assessed and selected for the job 2. Entering and exiting the selected digital video software are demonstrated and the tools and features of the program used correctly 3. Digital video editing software is used to combine given video assets 4. Video is saved and retrieved using the designated file formats
3. Design and edit digital video	<ol style="list-style-type: none"> 1. Digital video software is selected appropriate to the required outcome 2. Video assets are combined using digital video editing software 3. Variations in video frame rates are controlled appropriate for the job to be undertaken 4. Time stamping techniques are applied to the video frames appropriate for the job to be undertaken 5. Digital video is saved using the appropriate file techniques
4. Present a digital video sequence	<ol style="list-style-type: none"> 1. Digital video is tested and combined with other digital imaging, sound and/or animation to create a multimedia sequence 2. The multimedia sequence including video is saved and presented

UNIT	ICPMM46cA Incorporate video into multimedia presentations
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	Digital video is undertaken in the workplace in consultation with supervisor to ensure correct skills and procedures are used
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to produce TWO different multimedia sequences incorporating video according to job specifications and the listed performance criteria.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.

UNIT	ICPMM46cA Incorporate video into multimedia presentations
-------------	--

Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> Detailed knowledge of digital video formats Detailed knowledge of contemporary video software Detailed knowledge of principles of video production Detailed knowledge of the digital medium for video Technical requirements for preparing artwork for multimedia output Recognition and how to use and apply different technologies for design purposes Broad knowledge base incorporating theoretical concepts of design principles Broad knowledge base incorporating theoretical concepts of multimedia software packages Detailed knowledge of information sources 	Underpinning skills	<ul style="list-style-type: none"> Basic analysis skills in relation to normal routine work processes Detailed skills in using applications features Basic skills in interpreting technical information Problem solving skills in known areas during normal routine work processes Plain English literacy and communication skills in relation to dealing with clients and team members Project planning skills in relation to scope, time, cost, quality, communications Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.		
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts		
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment		

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM47dA Incorporate 3D modelling into multimedia presentations
FIELD	Use
DESCRIPTION	This unit describes the competency required to incorporate 3D modelling into multimedia presentations
RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.

ELEMENT	PERFORMANCE CRITERIA
1. Identify and describe formats of 3D Modelling	<ol style="list-style-type: none"> 1. A range of 3D modelling software are identified and distinguishing features examined 2. Contemporary 3D modelling software is selected appropriate to a range of given outcomes 3. Limiting factors of computer hardware on 3D modelling production are identified 4. The digital medium for 3D is explained for a specified job 5. The formats employed to create a given 3D model are analysed and discussed for a specified job
2. Use 3D modelling software	<ol style="list-style-type: none"> 1. Appropriate 3D modelling software is assessed and selected for the job 2. Entering and exiting the selected 3D modelling software are demonstrated and the tools and features of the program used correctly 3. Editing and manipulating 3D models are demonstrated and the tools and features of the program used correctly 4. 3D modelling editing software is used to combine given video assets 5. 3D model is saved and retrieved using the designated file formats

UNIT	ICPMM47dA Incorporate 3D modelling into multimedia presentations	
3. Design and edit a 3D model	<ol style="list-style-type: none"> 1. 3D modelling software is selected appropriate to the required outcome 2. 3D object is created using software commands 3. 3D virtual model space is created using software commands 4. Boolean operations and Vector based drawings are created relevant to a 3D model 5. Predefined textures are applied to a control model using texture mapping parameters 6. Visual mood and colour tones are used to control model and virtual space 7. Lighting and shadows are added to the 3D model to define texture 8. Camera control options are defined and manipulated to achieve the visual objective 9. Object motion hierarchies are demonstrated and used to achieve a motion effect 	
4. Present a 3D modelling sequence	<ol style="list-style-type: none"> 1. 3D model motion is tested and combined with other digital imaging, sound and/or animation / video to create a multimedia sequence with regard for cross platform file transfers, digitised time coding and interface calibration 2. The multimedia sequence including 3D modelling is saved and presented with reference to file compression technology 	

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	3D modelling is undertaken in the workplace in consultation with the supervisor to ensure that correct skills and procedures are used
Hardware	Variables may include but are not limited to LANs, WANs
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
File system	May involve multiple or single servers, multiple or single logical disks and complex directory or folder structures
Operating system	Each product will have different functionality and ways of operating. Third party products may also be used in administration.
Back-up	May involve simple, single tape unit back-up to more comprehensive and complex back-up facilities across the network.
Software	Variables may include but are not limited to: commercial system software; organisational specific systems software
IT components	Can include hardware, software and communications packages

UNIT

ICPMM47dA Incorporate 3D modelling into multimedia presentations

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to produce TWO different multimedia sequences incorporating 3D modelling according to job specifications and the listed performance criteria.

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.

Underpinning skills and knowledge**Underpinning knowledge**

- Detailed knowledge of 3D Modelling formats
- Detailed knowledge of 3D modelling software
- Detailed knowledge of the principles of 3D modelling design
- Detailed knowledge of 3D modelling sequencing
- Technical requirements for preparing artwork for multimedia output
- Recognition and how to use and apply different technologies for design purposes
- Broad knowledge base incorporating theoretical concepts of design principles
- Broad knowledge base incorporating theoretical concepts of multimedia software packages

Underpinning skills

- Skills to use 3D modelling software, formats, sequencing
- Detailed skills in using applications features
- Basic skills in interpreting technical information
- Project planning skills in relation to scope, time, cost, quality, communications
- Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM61dA Prepare multimedia for different platforms
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to prepare multimedia for different platforms
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify and describe multimedia delivery techniques	<ol style="list-style-type: none"> 1. A range of multimedia delivery platforms is identified and distinguishing features examined 2. MPEG video, CD-ROM and CDI formats are explained appropriate for the job to be undertaken 3. Internet delivery options are defined and limitations and advantages detailed 4. Emerging processes for delivering multimedia are identified relevant to the industry sector 5. Conversion methods from one platform to another are identified to deliver the desired outcome
2. Prepare data for multimedia platforms	<ol style="list-style-type: none"> 1. Suitability of digital data for delivery platform is assessed to deliver the desired outcome 2. The appropriate multimedia delivery platform is selected to deliver the desired outcome 3. Data is redesigned and/or adapted to suit selected platform 4. Data is formatted or reformatted for selected platform

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	Conversion of multimedia for delivery on a range of platforms
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures

UNIT	ICPMM61dA Prepare multimedia for different platforms
-------------	---

IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to produce THREE multimedia sequences which include a range of different elements, each on a different delivery platform according to job specifications and the listed performance criteria.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Detailed knowledge of multimedia delivery techniques • Detailed knowledge of principles of conversion from one platform to another • Technical requirements for preparing artwork for multimedia output • Recognition and how to use and apply different technologies for design purposes • Broad knowledge base incorporating theoretical concepts of design principles • Broad knowledge base incorporating theoretical concepts of multimedia software packages 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Project planning skills in relation to scope, time, cost, quality, communications • Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information • Problem solving skills for a defined range of predictable problems
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment	

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM63bA Access the Internet
-------------	--------------------------------------

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to access the Internet
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify and use local resources	1. Installed Internet software applications are identified and started up 2. Internet software is used off line or online 3. Extracting (decompressing) software and virus scanner are used on downloaded files 4. Internet protocols and connection are identified 5. Security risks are avoided
2. Identify and use remote resources	1. Files and documents using the Internet search engines are accessed 2. The Internet is browsed to find related sites via links 3. Files are retrieved from a FTP repository 4. Emails are sent, downloaded, read and responded to 5. Files attached to incoming emails are retrieved and sent as attached files 6. Newsgroups relevant to the industry are accessed

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	The Internet is accessed in the workplace in consultation with supervisor to ensure correct skills and procedures are used
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures

UNIT	ICPMM63bA Access the Internet
------	--------------------------------------

IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to access the Internet and obtain and send information as required.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Detailed knowledge of how to initiate and conclude an Internet connection • Detailed knowledge of appropriate uses of different Internet protocols and data types (WWW, email, etc) • Detailed knowledge of privacy and security measures related to online tasks • Detailed knowledge of information sources 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Access the Internet and retrieve data using WWW and email and newsgroups. • Send a simple email or newsgroup posting. • Perform a simple search and save the text of a web page to disk. • Extract and virus-scan downloaded files. • Demonstrate an ability to find and use information relevant to the task from a variety of information sources.
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.	

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICPMM65dA Create web pages with multimedia
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to create web pages with multimedia
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify the tools and parameters of web page design	<ol style="list-style-type: none"> 1. The uses of HTML or XML on and off the Internet are described 2. Principles of design and navigation are correctly applied to the context of web page viewing 3. Differences between page layout languages versus document content description are outlined 4. File types for images and other data are chosen to suit the intended viewing environment 5. HTML or XML specifications and extension types are named and a suitable XML HTML level or DTD is chosen for the current task 6. Types of web authoring software are identified and selected in accordance with type of authoring task and workplace procedures
2. Produce web pages	<ol style="list-style-type: none"> 1. Images, sound, and other referenced files are sourced and optimised for download and display 2. Web authoring, conversion, or test editing software is used to prepare pages incorporating text with images and video, sound, scripts or programming, according to design brief 3. Completed XML or HTML pages are saved to hard disk with appropriate file names 4. Raw XML or HTML is checked for obvious redundancies and omissions, and enhanced if necessary with recent extensions, ALT tags, etc
3. Validate and prepare for distribution	<ol style="list-style-type: none"> 1. Pages are validated with suitable syntax parsing and rules checking software 2. XML or HTML is corrected in response to validation reports until clean validation is achieved at chosen level 3. Pages and associated files are uploaded to server or transferred to other media and prepared for access 4. Internal and external links are checked for functionality in their final location

UNIT	ICPMM65dA Create web pages with multimedia
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

Degree of autonomy	Working independently but consulting others as required
Distribution / display	World Wide Web public access, local intranet, CD-ROM, kiosk or specific purpose delivery methods as required
Validation procedures	SGML syntax parsers and "lint" or rules-based checkers, either accessed via the Internet or run from local disk
Software	Web authoring and/or conversion software as used in the workplace
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to create and validate at least TWO linked web pages incorporating multimedia and prepare them for distribution on the Internet or other medium
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.

UNIT	ICPMM65dA Create web pages with multimedia
-------------	---

Underpinning skills and knowledge

Underpinning knowledge

- Detailed knowledge of software used for web authoring, how used and advantages and disadvantages
- Detailed knowledge of the types of adjustments required when converting printable artwork to web pages
- Detailed knowledge of Internet-related issues such as bandwidth, platform-independence and screen types, and how they are resolved
- Detailed knowledge of the purpose and process of validation and the role of standards and extensions
- Detailed knowledge of the hardware, software and configurations required to view completed work

Underpinning skills

- Project planning skills in relation to scope, time, cost, quality, communications
- Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures
- Basic analysis skills in relation to normal routine work processes
- Detailed skills in using applications features
- Basic skills in interpreting technical information
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Problem solving skills for a defined range of predictable problems
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM67dA Plan interface design
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to plan an interface design
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify the features of interface design	<ol style="list-style-type: none"> 1. The plan, concept and visuals of an interface design are correctly described and distinguishing features are identified 2. The features and principles of interface design relevant to the specific multimedia outcomes are defined 3. The role of interface design interactive multimedia products is described for a range of specified outcomes
2. Develop interface design strategies	<ol style="list-style-type: none"> 1. An interface design plan is developed for interactive screens in accordance with a design brief 2. Ideas, concept sketches, design strategies for an interface design brief are mapped for a specified outcome 3. The principles of interface design are explained and applied to the design brief 4. Interface designs are created for a specified outcome using 2D and 3D software 5. The navigation system to create the interface design for a specified outcome is defined including button design, non-linearity and transitions 6. The interface designs are tested and presented to deliver the desired outcome
3. Produce user documentation	<ol style="list-style-type: none"> 1. Write documentation that enables user to enter, leave and navigate through presentation 2. Check that documentation is accurate, unambiguous and easily understood

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	An interface design is planned in the workplace in consultation with supervisor to ensure correct skills and procedures are used
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications

UNIT		ICPMM67dA Plan interface design
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities	
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures	
IT components	Can include hardware, software and communications packages	
Documentation and Reporting	Audit trails, naming standards, version control	
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency	
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used	
EVIDENCE GUIDE		
Critical aspects of evidence	Assessment must confirm the ability to design and document interfaces for TWO multimedia interactive presentations according to job specifications and the listed performance criteria	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Detailed knowledge of the principles of interface design • Detailed knowledge of interface design strategies • Detailed knowledge of information sources • Technical requirements for preparing artwork for multimedia output • Recognition and how to use and apply different technologies for design purposes • Broad knowledge base incorporating theoretical concepts of design principles • Broad knowledge base incorporating theoretical concepts of multimedia software packages 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Basic skills in interpreting technical information • Problem solving skills in known areas during normal routine work processes • Plain English literacy and communication skills in relation to dealing with clients and team members • Project planning skills in relation to scope, time, cost, quality, communications • Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment	

UNIT	ICPMM67dA Plan interface design
------	--

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	1	2	2

UNIT	ICPMM81eA Manage multimedia production
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to manage multimedia production
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Design a production cycle for a multimedia product	<ol style="list-style-type: none"> 1. Management components of the production cycle are identified and coordinated to achieve a defined outcome 2. Concepts for multimedia integration are posited and their sequence planned 3. Prototype sequences are designed and tested in accordance with specifications 4. Multimedia production is undertaken that conforms to product specifications 5. The final product is tested for conformity to specifications and released to client
2. Define the attributes of interactive multimedia products	<ol style="list-style-type: none"> 1. The attributes of hypermedia are defined and incorporated into a given production 2. The attributes of hypertext are defined and incorporated into a given production 3. Linear and interactive information structures are distinguished and incorporated into a given production
3. Manage research	<ol style="list-style-type: none"> 1. Client specifications are researched and checked back with client to deliver the desired outcome 2. Files, documents, images and footage relevant to project requirements are sourced and their function documented and sequenced 3. Liaison with clients is undertaken, records of interviews kept, and specifications monitored within the management of the specific project to achieve the required outcomes 4. Files, documents, images and footage relevant to specific projects are filed for future reference with regard for client confidentiality

UNIT	ICPMM81eA Manage multimedia production
-------------	---

4. Manage the multimedia process	<ol style="list-style-type: none"> 1. The order of process procedure is determined and documented to deliver the desired outcome 2. Costs are determined, checked with client, and documented to deliver the desired outcome 3. Quality outcomes are determined and documented and a quality system is established to monitor the quality of the product 4. The product outcome is produced fit for purpose 5. The product is tested against specifications prior to client release 6. Endorsement of the product by the client is gained to ensure specifications have been fulfilled
----------------------------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	A multimedia production is managed in the workplace in consultation with supervisor to ensure correct skills and procedures are used
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to produce a portfolio that demonstrates establishing, monitoring and evaluating a production cycle including using attributes of specific multimedia interactivity. The portfolio should include material that covers: defined components of a production cycle; concepts for multimedia integration; prototype sequences and attributes; product testing and quality considerations.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.

UNIT	ICPMM81eA Manage multimedia production
-------------	--

Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Detailed knowledge of multimedia production cycle • Detailed knowledge of interactive multimedia product attributes • Detailed knowledge of the multimedia production process • Technical requirements for preparing artwork for multimedia output • Recognition and how to use and apply different technologies for design purposes • Broad knowledge base incorporating theoretical concepts of design principles • Broad knowledge base incorporating theoretical concepts of multimedia software packages • General knowledge of electronic components of multimedia • General knowledge of the scope of multimedia • General knowledge of the features and functions of multimedia operating systems • Broad general knowledge of the role of multimedia • Broad knowledge base of quality assurance practices • Broad general knowledge of the client business domain • A broad knowledge base incorporating current industry multimedia products and procedures with broad knowledge of general features and capabilities and detailed knowledge in some areas 	Underpinning skills
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment	

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPMM82eA Manage multimedia projects
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to manage multimedia projects
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Develop a project plan	<ol style="list-style-type: none"> 1. The elements of the project plan are identified in accordance with the principles of project management 2. Planning tools are identified for application to the project 3. Time and budget factors are identified and incorporated into the plan
2. Manage resources and time	<ol style="list-style-type: none"> 1. Hardware resources relevant to specific multimedia tasks are identified, evaluated and incorporated to achieve the required outcome 2. Time management is integrated into project planning and monitoring 3. Human resources are incorporated and supported within the project framework to achieve the required outcome 4. Team work elements are identified and developed to achieve the required outcome
3. Identify legal issues	<ol style="list-style-type: none"> 1. Copyright principles and conventions relevant to digital data are identified and legal precedents noted 2. The copyright issues relating to multimedia authoring, digital imaging and digital sound are explained and strategies are devised to account for relevant contingencies 3. Copyright ownership of multimedia authoring, digital imaging and digital sound is established prior to commencing a brief and relevant documentation verified 4. Applications of law with reference to multimedia product warranties, software licences, consultants, sponsors and distribution are determined appropriate for the job to be undertaken and relevant to the industry sector
4. Manage research	<ol style="list-style-type: none"> 1. Files, documents, images and footage relevant to project requirements are sourced and their function documented and sequenced 2. Liaison with clients is undertaken, records of interviews kept, and specifications monitored within the management of the specific project to achieve the required outcomes 3. Files, documents, images and footage relevant to specific projects are filed for future reference with regard for client confidentiality

UNIT		ICPMM82eA Manage multimedia projects
5. Determine and manage multimedia budgets	<ol style="list-style-type: none"> 1. Estimation models of costs are identified and applied to a range of multimedia products 2. Budget plans are established and checked against estimations to deliver accurate costings 3. Tendering processes and costs are determined and implemented to deliver the required outcome within designated time frames and costs 4. Project costs are determined, documented and monitored continuously to comply with business commitments and legal obligations 5. Business transactions are undertaken ethically and in accordance with law 6. Multimedia project budget estimates and expenditure are contrasted and documented to assist in future business dealings 	
6. Manage project outcomes	<ol style="list-style-type: none"> 1. Multimedia inputs are combined to form a definitive master 2. The master product is duplicated and distributed in accordance with client specifications 3. The project outcomes are refined to meet quality standards 	

RANGE OF VARIABLES	
VARIABLE	SCOPE
Degree of autonomy	A multimedia project is managed in the workplace in consultation with supervisor to ensure correct skills and procedures are used
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

UNIT

ICPMM82eA Manage multimedia projects

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to produce a portfolio that demonstrates multimedia project management over TWO different completed projects. The portfolio should include material that covers: planning tools; time and budget factors; resource management; time management; human resources; team work; research management; a multimedia master; legal and copyright material; licences and warranties; distribution arrangements.

Demonstrate an ability to find and use information relevant to the task from a variety of information sources.

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical multimedia units.

Underpinning skills and knowledge**Underpinning knowledge**

- Detailed knowledge of developing a project plan
- Detailed knowledge of managing resources and time
- Detailed knowledge of managing research
- Detailed knowledge of managing project outcomes
- Detailed knowledge of legal issues
- Detailed knowledge of multimedia budgets
- Technical requirements for preparing artwork for multimedia output
- Recognition and how to use and apply different technologies for design purposes
- Broad knowledge base incorporating theoretical concepts of design principles
- Broad knowledge base incorporating theoretical concepts of multimedia software packages
- General OH&S principles and responsibilities
- General knowledge of electronic components of multimedia
- General knowledge of the scope of multimedia
- General knowledge of the features and functions of multimedia operating systems
- Broad general knowledge of the role of multimedia
- Broad knowledge base of quality assurance practices
- Broad general knowledge of the client business domain
- A broad knowledge base incorporating current industry multimedia products and procedures with broad knowledge of general features and capabilities and detailed knowledge in some areas

Underpinning skills

- Project planning skills in relation to scope, time, cost, quality, communications
- Research skills for identifying, analysing and evaluating broad features of current multimedia usage and best practice in multimedia products and procedures
- Financial modelling skills for identifying, analysing and evaluating a range of different solutions
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Problem solving skills for a defined range of predictable problems
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts

UNIT

ICPMM82eA Manage multimedia projects

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICPPP11cA Develop a detailed design concept
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to develop a detailed design concept
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine the specifications of the brief	<ol style="list-style-type: none"> 1. Appropriate communication techniques are selected to determine relevant client information and brief requirements 2. Job details are accurately documented to meet enterprise policies and procedures
2. Render a graphic design	<ol style="list-style-type: none"> 1. The client requirements are translated into a design concept that accords with the brief 2. A range of graphic design ideas are detailed and the potential of each is assessed in accordance with the brief 3. A unique graphic design concept is rendered electronically to conform to the brief 4. The rendered graphic design is assessed for IT feasibility in accordance with the requirements of the brief 5. A visual is produced showing position and fit of design elements to document the design layout
3. Produce a dummy	<ol style="list-style-type: none"> 1. A range of visual imagery interpretations of the brief are made to present options to the client 2. Text and images are graphically presented to conform with the layout 3. Basic imposition is calculated to suit screen and technology requirements 4. A mock-up is produced for marking-up copy and to obtain client feedback about the suitability of design

UNIT		ICPPP11cA Develop a detailed design concept
4. Produce complex finished artwork	<ol style="list-style-type: none"> 1. A design concept is structured step by step to conform with technology requirements 2. Appropriate styles are selected to conform with the client brief and the technology requirements 3. Appropriate styles of photography and illustration are selected to conform with the client brief and the technology requirements 4. Colours are selected and combined effectively to conform with the client brief and technology requirements 	
5. Verify brief fulfilment	<ol style="list-style-type: none"> 1. Client feedback is incorporated into the final design layout to ensure conformity with client expectations 2. The layout is checked for errors and omissions to effect the requirements of the brief 	

RANGE OF VARIABLES	
VARIABLE	SCOPE
Complexity of process	Artwork is complex and may involve numerous elements
Degree of autonomy	Initiative, judgement and working in consultation with others
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures
IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to produce a design which meets the client brief and specifications, the design will incorporate a range of design elements indicating a coherent and dexterous application of design principles. The underlying skill of designing a detailed layout to conform to brief specifications should be transferable across design and technology requirements.

UNIT	ICPPP11cA Develop a detailed design concept
-------------	---

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical/ support units.

Underpinning skills and knowledge

Underpinning knowledge

- Technical requirements for preparing artwork for multimedia output
- Recognition and how to use and apply different technologies for design purposes
- Broad knowledge base incorporating theoretical concepts of design principles
- Broad knowledge base incorporating theoretical concepts of multimedia software packages
- General OH&S principles and responsibilities
- Information sources

Underpinning skills

- Use of camera and computer equipment
- Paste up elements and overlays
- Evaluating artwork and its suitability for various multimedia technologies
- Advanced use of software applications
- Basic analysis skills in relation to normal routine work processes
- Basic skills in interpreting technical information
- Problem solving skills in known areas during normal routine work processes
- Plain English literacy and communication skills in relation to dealing with clients and team members

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts

Context

Competency should be assessed in the work environment, using either manual and/or electronic equipment. It is expected that special purpose tools and equipment (including industry software packages) would be used where appropriate.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	1	2	2

UNIT	ICPPP11dA Undertake a complex design brief
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the competency required to undertake a complex design brief
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Negotiate a complex design contract	<ol style="list-style-type: none"> 1. Appropriate communication techniques are selected to receive complex design brief requirements and instructions from the client 2. Job analysis and research are undertaken to source cost-efficient design production procedures 3. Possible design options are analysed to match optional technology options 4. Individual design stages of the brief are timed and costed to determine accurate parameters of cost 5. A quotation is prepared using accurate estimates to communicate to the client the fees required to undertake the brief 6. A design brief contract is presented to the client to confirm client preparedness to remunerate the design process
2. Plan the design process	<ol style="list-style-type: none"> 1. Client approval to proceed is obtained to determine the allocation of work within the enterprise 2. The appropriate production processes are planned and scheduled to meet the specifications of the brief 3. Materials are sourced and ordered to conform with the brief requirements 4. Design team members are briefed and work roles allocated to facilitate the orderliness and timeliness of the design process
3. Render a complex graphic design	<ol style="list-style-type: none"> 1. A complex graphic design concept is rendered electronically to conform to the brief 2. The production processes of the design concept for colour, rollout and costs are assessed in accordance with the requirements of the brief 3. The specifications for reproducing and /or developing the finished artwork are annotated so as to define specified technology requirements and processes

UNIT	ICPPP11dA Undertake a complex design brief
4. Ensure feasibility of production	<ol style="list-style-type: none"> 1. Costs of proposed design do not compromise client requirements and specifications 2. The reproduction feasibility of design and chosen technology is confirmed 3. Line and tone are combined and dot complexity of photography is analysed to meet specified quality of image requirements 4. Chosen technology is the best options for client requirements
5. Solve technical problems	<ol style="list-style-type: none"> 1. Technical problems are resolved by re-design or amendment of the brief in consultation with the client to acceptable standards 2. Online help is determined and used to overcome difficulties with applications 3. Technical support is accessed and trouble shooting results and alert messages are supplied to technical support
6. Ensure quality output	<ol style="list-style-type: none"> 1. Standards for reproduction are documented to form a baseline for the design process 2. Design solutions are filed and stored ready for retrieval in accordance with enterprise standards 3. Internal performance standards are evaluated to identify potential reforms for future enterprise procedures 4. Future actions are determined to incorporate accurate cost and time analyses into future briefs

RANGE OF VARIABLES

VARIABLE	SCOPE
Design tools	The competency can be demonstrated using a range of manual or electronic equipment and software applications
Clients	The client can refer to internal or external clients
Costing	Costing details can include hourly rates, material costs and any other factor contributing to job costs
Applications	Design can be specific to publishing, consultancy, advertising or packaging
Complexity	Complex refers to intricate and detailed design and may include a range of technologies
Quality standards	Quality refers to the standard of outcome specified by the client in accordance with enterprise standards
Degree of autonomy	Working independently and taking responsibility for fulfilment of brief
Hardware	Variables may include but are not limited to personal computers and networked systems
Document	Variables may include but are not limited to: established files and applications
Software	Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities
Organisational	Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures

UNIT	ICPPP11dA Undertake a complex design brief
-------------	---

IT components	Can include hardware, software and communications packages
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	<p>Assessment must confirm the ability to solve complex technical problems of layout to conform to brief specifications and should be transferable across different designs and technologies. Assessment must confirm the ability to produce finished artwork from a complex design brief.</p> <p>Assessment must confirm the ability to find and use information relevant to the task from a variety of information sources.</p>	
Interdependent assessment of units	<p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT multimedia services and should therefore be assessed in a holistic manner with the technical/ support units.</p>	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Broad knowledge base incorporating theoretical concepts of design and colour theory • Broad knowledge base of vendor applications and their features • Technical requirements for preparing artwork for multimedia output • Recognition and how to use and apply different technologies for design purposes • Broad knowledge base incorporating theoretical concepts of design principles • Broad knowledge base incorporating theoretical concepts of multimedia software packages • General OH&S principles and responsibilities 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Use of camera and computer equipment • Paste up elements and overlays • Evaluating artwork and its suitability for various multimedia technologies • Advanced use of software applications • Basic analysis skills in relation to normal routine work processes • Basic skills in interpreting technical information • Problem solving skills in known areas during normal routine work processes • Plain English literacy and communication skills in relation to dealing with clients and team members • Technical problem solving • Basic analysis skills in relation to evaluating artwork • Project planning skills in relation to scope, time, cost, quality, communications
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made	
Consistency	Competence in this unit needs to be assessed over a period of time to ensure consistency of performance in a range of contexts	

UNIT

ICPPP11dA Undertake a complex design brief**Context**

Competency should be assessed in the work environment, using either mechanical and/or electronic equipment. It is expected that special purpose tools and equipment (including industry software packages) would be used where appropriate.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise. Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICTTC200A Use telecommunications technology in receiving/making calls in the call centre environment
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	Call centre activity is mainly built around the use of telecommunications technology in dealings with customers. This unit establishes competency in the effective and efficient operation and use of such technology.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Operate and effectively use telecommunications technology in the operational environment	<ol style="list-style-type: none"> 1. Type of technology used is identified 2. Operational manuals are obtained and applied 3. Features of technology are identified and related to different usages 4. Equipment is correctly operated to generate and receive communication messages 5. Appropriate facilities and/or actions are used to receive, make, hold or transfer calls
2. Receive and respond to incoming calls	<ol style="list-style-type: none"> 1. Enterprise protocol is identified and used appropriately 2. Appropriate facilities and/or actions are used 3. Callers are identified correctly 4. The purpose of the incoming call is correctly identified and verified with the caller prior to subsequent action 5. Information disclosed in actioning the call is in keeping with enterprise policy 6. Calls which require attention from another person are transferred promptly and successfully 7. Messages are taken where appropriate in accordance with enterprise procedures 8. Messages are recorded using clear and concise language so that meaning is readily understood by the recipient

UNIT	ICTTC200A Use telecommunications technology in receiving/making calls in the call centre environment
-------------	---

3. Making outgoing calls and transmit messages	<ol style="list-style-type: none"> 1. A clear objective for an outgoing call is established 2. Prior to making a call, all relevant information is identified, located and obtained 3. Required telephone number/s are obtained 4. Contact is established using designated business protocol and procedures 5. Purpose of the call is conveyed clearly and concisely to the recipient 6. Purpose of the call is verified with the recipient to ensure clear understanding 7. Messages are passed on clearly and concisely where required 8. Understanding of a passed message is verified with the receiver
--	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

The defined environment

- Stakeholders
- Business context
- Technology
- Level of complexity of customers and products

Call Centre

- Telecommunications companies-product sales and marketing, customer service and account inquiries, directory services, call assistance.
- Computer software and hardware companies-product sales and information, product and customer support.
- Banking sector-marketing services, customer funds transfer, loan applications, customer support.
- Insurance companies-customer service, product sales, new policy applications, renewals
- Travel industry-reservations, information, customer support, loyalty programs.
- Market research companies
- Charity organisations-financial support and product sales
- Mercantile agencies
- Credit reporting bureaus
- Government organisations-government service inquiries, government benefit issues

UNIT	ICTTC200A Use telecommunications technology in receiving/making calls in the call centre environment
-------------	---

The operational environment	<ul style="list-style-type: none"> • Regulatory environment in which the enterprise and/or industry operates. • Enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> • Quality management • Corporate conduct/ethics • People • Health and safety • Equal employment opportunity • Escalated service difficulties • Customer complaints • Procedures and standards specified by process owners, customers, or suppliers
Requirements of the environment	<ul style="list-style-type: none"> • Business rules • Accountabilities • Stress management guidelines • Ergonomic guidelines • Authorising delegations • Service memoranda of understanding/service delivery agreements • Performance measures • Targets • Agreed service delivery scope and charter
Call centre technology	Can be specified to the company and/or call centre. It is usually designed to meet the application needs of the particular centre
Operational manuals	Are equipment specific and may be added to by enterprise instructions and procedures
Call centre traffic	May be via voice (telephone) or by data (fax, computer modem). Computer Telephony Integration (CTI) integrates computers and telephones
Incoming callers	May first be greeted by interactive voice recording and/or hold messages
Incoming telephone traffic	May be routed by automatic call distributors (ACD)
Callers	May be customers, suppliers, enterprise staff
Telephone Systems	May be single line phones (usually extension of PABX), business systems or unique PABX extension instruments. All such systems are unique to the supplier and all have different features, modes of operation. These are usually fully documented in relevant instruction manuals

UNIT	ICTTC200A Use telecommunications technology in receiving/making calls in the call centre environment
Telephone features	May include hands free, hold facilities, transfer facilities and ACD specific facilities
Proficiency	In the use of communication technology includes accuracy and timeliness
Protocol	For receiving and making telephone calls specifies the phrasing used to identify both the call and the caller and usually takes the form of a standard phrase. The content of the phrase or phrases is unique to the enterprise/call centre
Telephone numbers	May be obtained from enterprise databases, telephone books, enterprise telephone directories, business directories
Relevant legislation, codes, regulations and standards	<ul style="list-style-type: none"> • Privacy Act • Telecommunications Act • Occupational Health and Safety Legislation • Industrial Awards and Agreements • Freedom of Information
EVIDENCE GUIDE	
Critical aspects of evidence	<ul style="list-style-type: none"> • Makes and receives calls in accordance with enterprise guidelines and timelines • Greets and screens customers effectively using specified procedures • Makes effective use of available telecommunications technology and ergonomic practices to make and receive calls • Correct commands, facilities and actions are used in processing telecommunications traffic • Makes outbound calls using appropriate protocols • Verifies the outgoing message in a manner which ensures accuracy of understanding from the receiver • Receives, records and transmits messages in a clear, concise and timely manner • Accurately identifies source of calling data • Skills and knowledge evidence may be completion of training courses or on-the-job learning
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and could therefore be assessed in a holistic manner with a number of different units

UNIT	ICTTC200A Use telecommunications technology in receiving/making calls in the call centre environment
-------------	---

Underpinning skills and knowledge

Underpinning Knowledge

- KC050- Enterprise Policies, Procedures and Guidelines
- KC051-Enterprise Culture and Values
- KC052-Enterprise Mission, Business Goals and Standards
- KC054-Enterprise Calling Protocol
- KC066-Operational Environment: Customer Base, Company Products and Services
- KC069-Operational Systems and Technology
- KC110-Stress Management Awareness
- KC111-Workplace Ergonomics
- KC112-Overview of Call Centre Operations

Underpinning Skills

- SC001-Basic Oral and Written Communication Skills
- SC004-Basic Customer Service Skills
- SC007-Telephone, Computer and Fax Operational Skills
- SC008-Telephone Manners
- SC009-Computer Keyboard Usage
- SC014-Voice Technique

Resources

Telecommunications equipment to enable the performance criteria to be met

Consistency

Candidates will provide evidence of their performance and their underpinning skills and knowledge

Evidence of competency is best obtained by observing activities in an operational environment under normal working conditions. If this is not practicable, observations in a realistic simulated environment may be substituted

Specific requirements for competency against a particular context, as defined in the range of variables, may vary between enterprises and for the particular learning strategy adopted

Skills and knowledge evidence may be completion of training courses or on-the-job learning

Context

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one's own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

UNIT	ICTTC200A Use telecommunications technology in receiving/making calls in the call centre environment
-------------	---

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	1	1	1	1	2

UNIT	ICTTC201A Use basic computer technology to process enterprise and customer data
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	Enterprises have systems unique to their environment. This unit establishes basic competency in the use of computers generally
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Establish context and background information	<ol style="list-style-type: none"> 1. Type of computer technology is identified 2. Operational manuals are obtained 3. Correct "Log On" procedures are identified and initiated 4. Appropriate password is established and used in accordance with established protocol where required
2. Identify and access relevant computer files	<ol style="list-style-type: none"> 1. Systems applications are identified by their icons 2. The keyboard and mouse are used proficiently to access applications 3. Systems applications are accessed using correct keystrokes or mouse actions 4. Appropriate tools and/or commands are used in operation the system 5. System is exited using appropriate "Log Off" procedures
3. Retrieve, view and close system files	<ol style="list-style-type: none"> 1. Uses of the various system applications are identified 2. Required application is selected and accessed 3. Relevant file is located and opened 4. Appropriate data location is identified and input or varied as required 5. File is accessed in a manner that preserves the integrity of the data 6. File and application is closed using defined procedures 7. Work is undertaken in a manner which is safe to both self and work colleagues
4. Navigate help files	<ol style="list-style-type: none"> 1. Help files are accessed and exited using correct keystrokes or mouse actions 2. Appropriate commands, keystrokes or mouse actions are used to navigate help files to obtain the relevant information

UNIT	ICTTC201A Use basic computer technology to process enterprise and customer data
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Call Centre	<ul style="list-style-type: none"> • Telecommunications companies-product sales and marketing, customer service and account inquiries, directory services and call assistance • Computer software and hardware companies-product sales and information, product and customer support • Banking sector-marketing services, customer funds • Insurance companies-customer service, product sales, new policy applications, renewals • Retailers and suppliers-marketing services and product, after sales support, dealer care, product sales and delivery • Travel industry-reservations, information, customer support, loyalty programs • Market research companies • Charity organisations-financial support and product sales • Mercantile agencies • Credit reporting bureaus • Government organisations-government service inquiries, government benefit issues
Operational environment	<ul style="list-style-type: none"> • Regulatory environment in which the enterprise and/or industry operates • Enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> – Quality management – Corporate conduct/ethics – People – Health and safety – Equal employment opportunity – Escalated service difficulties – Customer complaints – Procedures and standards specified by process owners, customers, or suppliers

UNIT	ICTTC201A Use basic computer technology to process enterprise and customer data
Requirements of the environment	<ul style="list-style-type: none"> • Business rules • Accountabilities • Stress management guidelines • Ergonomic guidelines • Authorising delegations • Service memoranda of understanding/service delivery agreements • Performance measures • Targets • Agreed service delivery scope and charter
The defined environment	<ul style="list-style-type: none"> • Stakeholders • Business context • Technology • Level of complexity of customers and products
Computer technology	Can be specific to the enterprise and products
Operational platforms	Are proprietary and normally enterprises build specific operational systems unique to their line of business to operate on such platforms
Operational Manuals	Are equipment specific and may be added to by enterprise instructions and procedures
Call Centre traffic	May be via a voice (telephone) or by data (Fax or Computer modem). Computer Telephony Integration (CTI) integrates computers and telephones
Log on and Log off procedures	May vary dependent on the operational platform and specific applications
Passwords	May be personal, enterprise and/or system pacific
Keyboard and mouse actions	May vary from system to system
Tools and commands	Vary from system to system and may include edit, format, grammar and spelling check, tables, font, size, page layout, data and print
Data location	May be in files, text, columns, cells, pictures, and may involve formulae
Proficiency	In the use of communication technology includes accuracy and timelines
Help files	Are unique to system platform
Relevant legislation, codes, regulations and standards	<ul style="list-style-type: none"> • Telecommunications Act • Occupational Health and Safety Legislation • Industrial Awards Agreements

UNIT	ICTTC201A Use basic computer technology to process enterprise and customer data
-------------	--

EVIDENCE GUIDE

Critical aspects of evidence	<ul style="list-style-type: none"> • Logs on and off effectively using the specified procedures • Understands and uses the operational manuals • Correct keystrokes or mouse actions are used to navigate around systems and between applications • Identifies and uses the various applications • Uses the appropriate tools and commands in working through applications • Enters and/or varies data accurately and in a timely manner • Help files are accessed when required 		
Interdependent assessment of units	<p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.</p>		
Underpinning skills and knowledge	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="vertical-align: top;"> <p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> • KC027-Problem solving process • KC050-Enterprise policies, procedures and guidelines • KC051-Enterprise culture and values • KC052-Enterprise mission, business goals and standards • KC066-Operational environment: customer base, company products and services • KC110-Stress management awareness • KC111-Workplace ergonomics • KC112-Overview of call Centre Operations </td> <td style="vertical-align: top;"> <p>Underpinning Skills:</p> <ul style="list-style-type: none"> • SC001-Basic oral and written communication skills • SC009-Computer keyboard usage • SC010-Computer literacy • SC011-Computer systems applications, tools and commands • SC012-Word, graphics, data base, spread sheet applications </td> </tr> </table>	<p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> • KC027-Problem solving process • KC050-Enterprise policies, procedures and guidelines • KC051-Enterprise culture and values • KC052-Enterprise mission, business goals and standards • KC066-Operational environment: customer base, company products and services • KC110-Stress management awareness • KC111-Workplace ergonomics • KC112-Overview of call Centre Operations 	<p>Underpinning Skills:</p> <ul style="list-style-type: none"> • SC001-Basic oral and written communication skills • SC009-Computer keyboard usage • SC010-Computer literacy • SC011-Computer systems applications, tools and commands • SC012-Word, graphics, data base, spread sheet applications
<p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> • KC027-Problem solving process • KC050-Enterprise policies, procedures and guidelines • KC051-Enterprise culture and values • KC052-Enterprise mission, business goals and standards • KC066-Operational environment: customer base, company products and services • KC110-Stress management awareness • KC111-Workplace ergonomics • KC112-Overview of call Centre Operations 	<p>Underpinning Skills:</p> <ul style="list-style-type: none"> • SC001-Basic oral and written communication skills • SC009-Computer keyboard usage • SC010-Computer literacy • SC011-Computer systems applications, tools and commands • SC012-Word, graphics, data base, spread sheet applications 		
Resources	Telecommunications equipment to enable the performance criteria to be met		
Consistency	<p>Candidates in will provide evidence to their performance and their underpinning skills and knowledge.</p> <p>Evidence of competency are best obtained by observing activities in an operational environment under normal working conditions. If this is not practicable, observations in a realistic simulated environment may be substituted. Specific requirements for competency against a particular context, as defined in the range of variables, may vary between enterprises and for the particular learning strategy adopted</p> <p>Skills and knowledge evidence may be completion of training courses or on-the-job learning</p>		

UNIT	ICTTC201A Use basic computer technology to process enterprise and customer data
-------------	---

Context

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	2

UNIT	ICTTC202A Use specific enterprise systems to satisfy customer requirements
FIELD	Use
DESCRIPTION	This unit establishes competency relating to the application and use of the various enterprise business systems developed to maintain up to date customer information
RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.

ELEMENT	PERFORMANCE CRITERIA
1. Locate and interpret information on most commonly used system screens	<ol style="list-style-type: none"> 1. Enterprise business systems are accessed using correct keying strategies 2. Customer requests are analysed to determine what data needs to be accessed 3. Possible sources of information are identified 4. Screens appropriate to the business to be transacted are located in a timely manner 5. Standard system procedures are applied to satisfy customer requirements 6. Appropriate codes are used to locate information 7. Information from other sources is accessed as necessary 8. Information, accessed from business systems and other sources, is analysed to meet customer requirements
2. Update and maintain information related to customer transaction on commonly used system screens	<ol style="list-style-type: none"> 1. Appropriate screen is accessed to initiate a transaction 2. All relevant data required to complete a transaction, is entered 3. Appropriate codes are used to complete a transaction 4. Information and commands are input correctly 5. Transactions are checked for accuracy/errors before release
3. Seek support for system problems/issues identified during transaction	<ol style="list-style-type: none"> 1. Appropriate sources of help, for problems/issues, are identified 2. The identified source/s of help are accessed to resolve problems/issues

UNIT	ICTTC202A Use specific enterprise systems to satisfy customer requirements
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Call Centre	<ul style="list-style-type: none"> • Telecommunications companies-product sales and marketing, customer service and account inquiries, directory services, call assistance • Computer software and hardware companies-product sales and information, product and customer support • Banking sector-marketing services, customer funds transfer, loan applications, customer service • Insurance companies-customer service, product sales, new policy applications, renewals • Retailers and suppliers- marketing services and product, after sales support, dealer care, product sales and delivery • Travel industry- reservations, information, customer support, loyalty programs • Market research companies • Charity organisations - financial support and product sales • Mercantile agencies • Credit reporting bureaus • Government organisations- government service inquiries, government benefit issues
Operational environment	<ul style="list-style-type: none"> • Regulatory environment in which the enterprise and/or industry operates • Enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> •Quality management •Corporate conduct/ethics •People •Health and safety •Equal employment opportunity •Escalated service difficulties •Customer complaints •Procedures and standards specified by process owners, customers, or suppliers
Customer	May be a user, purchaser, or beneficiary of a service, product or process and may be internal or external to the organisation and may include colleagues
Information	May include both specific details requested by a customer or others, and details required from core business systems or other sources in order to complete a transaction
Transaction	May be a sequence of interactions in enterprise business systems which performed by the staff member in satisfying the customer's needs

UNIT	ICTTC202A Use specific enterprise systems to satisfy customer requirements
Requirements of the environment	<ul style="list-style-type: none"> • Business rules • Accountabilities • Stress management guidelines • Ergonomic guidelines • Authorising delegations • Service memoranda of understanding/service delivery agreements • Performance measures • Targets • Agreed service delivery scope and charter • The defined environment of the relationship, including: <ul style="list-style-type: none"> • Stakeholders • Business context • Technology • Level of complexity of customers and products
Other sources of information	May include previous experience, reference materials, colleagues
Enter or Modify data	<p>Includes entering information for storage, transactions to modify existing records and defined order types for the provision of products and services</p> <p>Core business systems help sources include system helpdesks, systems operation units, reference materials, colleagues, supervisor, coaches</p>
Business Systems	Are unique to the enterprise and may even vary within business units within an enterprise
Relevant legislation, codes, regulations and standards	<ul style="list-style-type: none"> • Privacy Act • Telecommunications Act • Occupational Health and Safety legislation • Industrial Awards and Agreements • Freedom of Information • Environment

UNIT	ICTTC202A Use specific enterprise systems to satisfy customer requirements
-------------	---

EVIDENCE GUIDE

Critical aspects of evidence	<ul style="list-style-type: none"> • Application of enterprise systems relevant to satisfactory delivery of customer service • Use of various screens within business systems • Efficient and effective navigation of appropriate screens to access required information • Use of standard operating procedures as described in enterprise system manuals • Accurate use of codes used to locate data • Checks to ensure data is captured in accordance with laid down procedures • Help files are accessed when required 		
Interdependent assessment of units	<p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.</p>		
Underpinning skills and knowledge	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> • KC027- Problem solving process • KC050- Enterprise Policies, Procedures and Guidelines • KC051- Enterprise Culture and Values • KC052- Enterprise Business Goals and Standards • KC063- Enterprise Business System(s) and Operating Platforms • KC066- Operational Environment: Customer Base, Company Products and Services • KC069- Operational Systems and Technology • KC110- Stress Management Awareness • KC111- Workplace Ergonomics • KC112- Overview of Call Centre Operations </td> <td style="vertical-align: top; width: 50%;"> <p>Underpinning Skills:</p> <ul style="list-style-type: none"> • SC001- Oral and Written Communication • SC009- Computer Keyboard Usage • SC010- Computer Literacy </td> </tr> </table>	<p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> • KC027- Problem solving process • KC050- Enterprise Policies, Procedures and Guidelines • KC051- Enterprise Culture and Values • KC052- Enterprise Business Goals and Standards • KC063- Enterprise Business System(s) and Operating Platforms • KC066- Operational Environment: Customer Base, Company Products and Services • KC069- Operational Systems and Technology • KC110- Stress Management Awareness • KC111- Workplace Ergonomics • KC112- Overview of Call Centre Operations 	<p>Underpinning Skills:</p> <ul style="list-style-type: none"> • SC001- Oral and Written Communication • SC009- Computer Keyboard Usage • SC010- Computer Literacy
<p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> • KC027- Problem solving process • KC050- Enterprise Policies, Procedures and Guidelines • KC051- Enterprise Culture and Values • KC052- Enterprise Business Goals and Standards • KC063- Enterprise Business System(s) and Operating Platforms • KC066- Operational Environment: Customer Base, Company Products and Services • KC069- Operational Systems and Technology • KC110- Stress Management Awareness • KC111- Workplace Ergonomics • KC112- Overview of Call Centre Operations 	<p>Underpinning Skills:</p> <ul style="list-style-type: none"> • SC001- Oral and Written Communication • SC009- Computer Keyboard Usage • SC010- Computer Literacy 		
Resources	<p>Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.</p>		
Consistency	<p>Candidates in will provide evidence to their performance and their underpinning skills and knowledge.</p> <p>Evidence of competency are best obtained by observing activities in an operational environment under normal working conditions. If this is not practicable, observations in a realistic simulated environment may be substituted. Specific requirements for competency against a particular context, as defined in the range of variables, may vary between enterprises and for the particular learning strategy adopted</p> <p>Skills and knowledge evidence may be completion of training courses or on-the-job learning</p>		

UNIT	ICTTC202A Use specific enterprise systems to satisfy customer requirements
-------------	---

Context

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	2	3	2	3	2

UNIT	ICTTC203A Navigate and interrogate specific enterprise systems to satisfy customer requirements
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit establishes competency relating to the application and use of the various enterprise business systems developed to maintain up to date customer information
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Access a range of enterprise business systems	1. Core business systems are accessed using correct keying strategies 2. Screens are navigated to locate displays and information 3. Interfaces between core business systems are navigated
2. Determine and locate information to satisfy customer requirements using multiple screens and more than one enterprise system	1. Customer inquiries are analysed to determine what data needs to be accessed 2. Screens and systems necessary for the provision of information are identified 3. Systems are accessed and interrogated to provide information necessary to complete the customer transaction/inquiry 4. Direct pathways are used to locate appropriate screens while discussions with customer continue 5. Information from other sources is accessed as necessary 6. Customer history is determined through navigation of relevant system screens 7. Information, accessed from business systems and other sources, is analysed to meet customer requirements
3. Enter or modify data to provide complex or advanced customer needs	1. Appropriate screen(s) or system(s) are accessed to initiate a transaction 2. All relevant data required to complete a transaction, is entered 3. Appropriate codes are used to complete a transaction 4. Transactions are checked for accuracy/errors before release

UNIT	ICTTC203A Navigate and interrogate specific enterprise systems to satisfy customer requirements
-------------	---

4. Identify and rectify system Information and processing errors	<ol style="list-style-type: none"> 1. Errors are identified and interpreted 2. Impact of errors on other system data or on other systems is analysed 3. Impact of errors on both customers and enterprise is determined 4. Decision as to action necessary to rectify problem is taken after consultation with colleagues/management as dictated by enterprise policy 5. Errors are rectified and accuracy of amendment is verified before completing transaction 6. Customers are informed of error and action taken where necessary 7. System problems are identified and brought to attention in accordance with enterprise policy 8. Cause and effect studies are undertaken and report prepared including recommendation for procedural change as necessary
--	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Call Centre	<ul style="list-style-type: none"> • Telecommunications companies-product sales and marketing, customer service and account inquiries, directory services and call assistance • Computer software and hardware companies-product sales and information, product and customer support • Banking sector-marketing services, customer funds transfer, loan applications, customer service • Insurance companies-customer service, product sales, new policy applications, renewals • Retailers and suppliers-marketing services and product, after sales support, dealer care, product sales and delivery • Travel industry-reservations, information, customer support, loyalty programs • Market research companies • Charity organisations-financial support and product sales • Mercantile agencies • Credit reporting bureaus • Government organisations-government service inquiries, government benefit issues
--------------------	---

UNIT	ICTTC203A Navigate and interrogate specific enterprise systems to satisfy customer requirements
-------------	---

Operational environment of a call centre

- Regulatory environment in which the enterprise and/or industry operates
- Enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering;
 - Quality management
 - Corporate conduct/ethics
 - People
 - Health and safety
 - Equal employment opportunity
 - Escalated service difficulties
 - Customer complaints
 - Procedures and standards specified by process owners, customers, or suppliers

Requirements of the environment

- Business rules
- Accountabilities
- Stress management guidelines
- Ergonomic guidelines
- Authorising delegations
- Service memoranda of understanding/service delivery agreements
- Performance measures
- Targets
- Agreed service delivery scope and charter
- The defined environment of the relationship, including:
 - Stakeholders
 - Business context
 - Technology
 - Level of complexity of customers and products

Customer

May be a user, purchaser, or beneficiary of a service, product or process and may be internal or external to the organisation and may include colleagues

Information

May include both specific details requested by a customer or others, and details required from core business systems or other sources in order to complete a transaction

Transaction

May be a sequence of interactions in enterprise business systems which performed by the staff member in satisfying the customer's needs

Other sources of information

May include previous experience, reference materials, colleagues

Enter or Modify data

Includes entering information for storage, transactions to modify existing records and defined order types for the provision of products and services

Core business systems help sources include system helpdesks, systems operation units, reference materials, colleagues, supervisor, coaches

Business Systems

Are unique to the enterprise and may even vary within business units within an enterprise

UNIT	ICTTC203A Navigate and interrogate specific enterprise systems to satisfy customer requirements
-------------	---

Relevant legislation, codes, regulations and standards

- Privacy Act
- Telecommunications Act
- Occupational Health and Safety legislation
- Industrial Awards and Agreements
- Freedom of Information

EVIDENCE GUIDE**Critical aspects of evidence**

Application of business systems relevant to satisfactory delivery of customer service

Use of interfaces between business systems where required

Efficient and effective navigation of the systems to access required information

Use of standard operating procedures s described in enterprise system manuals

Accurate use of codes used to locate data

Accurate entering of data onto the system

Checks to ensure data is captured in accordance with laid down procedures

Identification and rectification of system errors

Analyses of errors and full and complete reporting of action to be taken including recommendations for procedural change where necessary

Satisfactory dealings with customers in explaining the errors and the action taken to rectify

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

Underpinning skills and knowledge**Underpinning Knowledge:**

- KC027- Problem Solving Skills
- KC050- Enterprise Policies, procedures and Guidelines
- KC051- Enterprise Culture and Values
- KC052- Enterprise Business Goals and Standards
- KC063- Enterprise Business System(s) and Operation Platforms
- KC066- Operational Environment: Customer base, Company Products and Services
- KC069- Operational Systems and Technology
- KC110- Stress Management Awareness
- KC111- Workplace Ergonomics
- KC112- Overview of Call Centre Operations

Underpinning Skills:

- SC002- Basic Oral and Written Communication Skills
- SC009- Computer Keyboard Usage
- SC010- Computer Literacy
- SC018- Negotiation Skills
- SC043- Analytical Thinking

UNIT	ICTTC203A Navigate and interrogate specific enterprise systems to satisfy customer requirements
-------------	---

Resources	Telecommunications equipment to enable the performance criteria to be met
Consistency	<p>Evidence of competency is best obtained by observing activities in an operational environment under normal working conditions. If this is not practicable, observations in a realistic simulated environment may be substituted</p> <p>Specific requirements for competency against a particular context, defined in the range of variables, may vary between enterprises and for the particular learning strategy adopted</p> <p>Skills and Knowledge evidence may be the completion of training courses or on-the-job learning</p>
Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for one’s own outputs in relation to specified quality standards; and • take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	1	2	2

UNIT	ICTTC204A Provide quality customer service
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	Each individual operator has a responsibility to establish rapport with individual customers in the provision of quality information and service
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Receive an inquiry from the customer	<ol style="list-style-type: none"> 1. Standard phrases are used to acknowledge the customer where applicable and in accordance with enterprise policy 2. An attentive and helpful manner is used in dealings with customers
2. Make initial contact with the customer	<ol style="list-style-type: none"> 1. Introductions are made using standard phrases where applicable 2. Customer's availability to continue with contact is assessed
3. Establish a relationship with customer	<ol style="list-style-type: none"> 1. Customer identity and details are established and confirmed with customer records if appropriate 2. Active listening, responding and empathy are applied to establish and maintain rapport with the customer
4. Determine customer requirements	<ol style="list-style-type: none"> 1. Active listening, questioning, responding and empathy are applied to determine the customer's requirements 2. The customer's needs are ascertained to gain their agreement to a particular course of action 3. Appropriate referral or hand-off procedures are implemented as required 4. Progress made on customer requests/inquiry is communicated fully to staff member delegated to process the issue

UNIT	ICTTC204A Provide quality customer service	
5. Respond to customer requests in a timely and effective manner	1.	Inquiries and requests are responded to promptly and accurately in accordance with enterprise policy
	2.	The customer request is discussed in an articulate, easy to understand manner without the use of jargon or acronyms
	3.	Appropriate options are identified and recommended, within enterprise constraints, to satisfy the customer's need
	4.	Opportunities to promote company products and services are taken to meet the customer's request/needs as appropriate
	5.	A commitment, most appropriate to meeting the customer's needs, as discussed and agreed with the customer
	6.	Sources of additional or more detailed information are accessed as appropriate to meet the customer's request/needs
	7.	Service and products are provided to the customer as agreed and within the business unit constraints
	8.	The customer is informed of progress
	9.	The customer is provided with clear explanations regarding any delay or inability to meet commitments and satisfy their request/needs
	10.	Customer satisfaction is checked by summarising information and confirming that objectives have been met
	11.	Further assistance, with a commitment to service, is offered to the customer before closing
	12.	The standard phrase is used to close the call if applicable
	13.	Work is undertaken in manner which is safe to self and to fellow workers

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables statement contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Quality and continuous improvement	Is defined by the enterprise and can apply to variation, customer service, standards, service delivery, performance, process, productivity, financial, goal setting, resource management
Active listening	Involves giving your full attention to the person who is speaking and responding in a way that lets them know you have listened and understood their message as they have intended
Team	Refers to the whole centre, or any group/ sub-unit within the centre
Commitment	Is a promised course of action designed to meet the customer's needs. It includes building rapport, keeping promises, keeping the customer informed, doing it right the first time, owning the customer's request, responding to the customer's request with operational efficiency
Empathy	Is the ability to recognise people's feelings, and to respect the other person's position

UNIT	ICTTC204A Provide quality customer service
Customer	May be a user, purchaser, or beneficiary of a service, product or process and may be internal or external to the organisation and may include colleagues
A Call Centre	<ul style="list-style-type: none"> • Telecommunications companies-product sales and marketing, customer service and account inquiries, directory services and call assistance • Computer software and hardware companies-product sales and information, product and customer support • Banking sector-marketing services, customer funds transfer, loan applications, customer service • Insurance companies-customer service, product sales, new policy applications, renewals • Retailers and suppliers-marketing services and product, after sales support, dealer care, product sales and delivery • Travel industry-reservations, information, customer support, loyalty programs • Market research companies • Charity organisations-financial support and product sales • Mercantile agencies • Credit reporting bureaus • Government organisations-government service inquiries, government benefit issues
Relevant legislation, codes, regulations and standards	<ul style="list-style-type: none"> • Privacy Act • EEO and anti discrimination legislation • Telecommunications Act • Occupational Health and Safety legislation • Industrial Awards and agreements • Freedom of Information • Environment
Inquiry	<p>An inquiry is any question or request for any information from a customer that can be resolved by provision of information. Inquiries may involve: requests for advice or assistance from internal or external customers, workplace colleagues and group/team leaders, managers, other staff members and members of the general public</p> <p>Questions about products and services</p> <p>Interactions with customers in a billing, provisioning, faults, selling, telemarketing, general inquiry or complaints context</p>

UNIT	ICTTC204A Provide quality customer service
<p>Operational environment</p>	<ul style="list-style-type: none"> • Regulatory environment in which the enterprise and/or industry operates • Enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> – Quality management – Corporate conduct/ethics – People – Health and safety – Equal employment opportunity – Escalated service difficulties – Customer complaints – Procedures and standards specified by process owners, customers, or suppliers
<p>Requirements of the environment</p>	<ul style="list-style-type: none"> • Business rules • Accountabilities • Stress management guidelines • Ergonomic guidelines • Authorising delegations • Service memoranda of understanding/service delivery agreements • Performance measures • Targets • Agreed service delivery scope and charter • The defined environment of the relationship, including: <ul style="list-style-type: none"> • Stakeholders • Business context • Technology • Level of complexity of customers and products

UNIT

ICTTC204A Provide quality customer service**EVIDENCE GUIDE****Critical aspects of evidence**

- Understanding of enterprise mission, goals and plans
- Knowledge of enterprise products, standards, policies and practices
- Use of appropriate phrases in dealing with customers
- Clear and concise communication with the customer including a full understanding of customer requirements
- Satisfaction of customer inquiry/requirement
- Referral of inquiry in a prompt and efficient manner when immediate satisfaction of customer need cannot be fully satisfied
- Referral is completed in such a manner that the customer is satisfied that attempts to provide service are fully met
- Various options are provided to the customer when more than one option can satisfy customer need
- Commitments are made with the customer in accordance with enterprise policy
- Opportunities are taken to promote company products
- Projection of a professional image in representing the company
- Demonstration of all related occupational health and safety requirements and work practices
- Contributes in a positive manner to the overall improvement of team performance
- Applies principles of quality and continuous improvement in all operational activities

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

Underpinning skills and knowledge**Underpinning KnowledgeL**

- KC050- Enterprise Policies, Procedures and Guidelines
- KC051- Enterprise Culture and Values
- KC052- Enterprise Business Goals and Standards
- KC053- Specific Work Role and Relationships
- KC064- Enterprise Protocols Associated with Customer Service
- KC066- Operational Environment: Customer Base, Company Products and Services
- KC068- Operational Systems
- KC084- Relative Information Sources
- KC110- Stress Management Awareness
- KC111- Workplace Ergonomics
- KC112- Overview of a Call Centre Operations

Underpinning Skills:

- SC002- Basic Oral and Written Skills
- SC004- Basic Customer Service Skills
- SC009- Computer Keyboard Usage
- SC015- Empathy
- SC016- Listening Skills
- SC017- Interpersonal Skills
- SC040- Teamwork

Resources

Telecommunications equipment to enable the performance criteria to be met

UNIT	ICTTC204A Provide quality customer service
-------------	---

Consistency

Evidence of competency is best obtained by observing activities in and operational environment under normal working conditions. If this is not practicable, observations in a realistic simulated environment may be substituted.

Specific requirements for competency against a particular context, as defined in the range of variables, may vary between enterprises and for the particular learning strategy adopted

Skills and knowledge evidence may be completion of training courses or on- the- job learning

Context

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	1	3	2

UNIT	ICTTC213A Provide support and assistance to customers on matters relating to a particular product(s)/service
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit applies to handling of the basic inquiries from customers related to provision and maintenance of a particular enterprise product and/or service. Support provided at this level would normally be in a “hotline” type environment where a special access number is allocated to a specific product/service
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify and clarify customer inquiry.	<ol style="list-style-type: none"> 1. Customer is queried for information related to inquiry. 2. Type of assistance required by the customer is determined. 3. Customer records are accessed where required and available. 4. Further information is sought from the customer where needed.
2. Satisfy customer need.	<ol style="list-style-type: none"> 1. Information required by the customer is accessed and provided in an efficient and timely manner. 2. Systems are activated to provide information where required. 3. Relevant specialist advice is accessed prior to satisfying customer requirements where required. 4. Customer is kept informed as to progress when further information is sought. 5. Inquiry is escalated where solution is complex or affects enterprise policy. 6. Where delays occur, customer is offered call back service at a time convenient to both parties. 7. Work is undertaken in a manner which is safe to self and fellow workers.

UNIT	ICTTC213A Provide support and assistance to customers on matters relating to a particular product(s)/service
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Support and assistance	May relate to assistance with product use, information relating to enterprise product/services, product/service costs, after sales support, warranty details and information, service timing/timetables
Customer records	Normally maintained in a computerised system specific to the enterprise but may take the form of paper/card related systems
The defined environment of the relationship	<ul style="list-style-type: none"> • stakeholders • business context • technology • level of complexity of customers and products
Information	Obtained from enterprise systems, customer records, operational manuals
Call Centre	<p>An organisational unit that acts as a focal point for communication between organisations and customers using live voice telephony and/or information technology to meet service purposes</p> <p>Call centres exist across a range of industries and industry sectors. Examples include:</p> <ul style="list-style-type: none"> • Telecommunications companies—product sales and marketing, customer service and account inquiries, directory services, call assistance. • Computer software and hardware companies—product sales and information, product and customer support. • Banking sector—marketing services, customer funds transfer, loan applications, customer service. • Insurance companies—customer service, product sales, new policy applications, renewals. • Retailers and suppliers—marketing services and product, after sales support, dealer care, product sales and delivery. • Travel industry—reservations, information, customer support, loyalty programs. • Market research companies. • Charity organisations—financial support and product sales. • Mercantile agencies. • Credit reporting bureaus. • Government organisations—government service inquiries, government benefit issues

UNIT	ICTTC213A Provide support and assistance to customers on matters relating to a particular product(s)/service
The operational environment of a call centre	<p>Operations will vary significantly from enterprise to enterprise and will be influenced by</p> <ul style="list-style-type: none"> • regulatory environment in which the enterprise and/or industry operates • enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> – quality management – corporate conduct/ethics – people – health and safety – equal employment opportunity – escalated service difficulties – customer complaints – procedures and standards specified by process owners, customers, or suppliers
Requirements of the environment	<ul style="list-style-type: none"> • business rules • accountabilities • stress management guidelines • ergonomic guidelines • authorising delegations • service memoranda of understanding/service delivery agreements • performance measures • targets • agreed service delivery scope and charter
Escalation procedures	Will vary from enterprise to enterprise
Customer inquiries	May be satisfied by activation of relevant technology such as computerised voice responses
Relevant legislation, codes, regulations and standards	<ul style="list-style-type: none"> • Privacy Act • EEO and Anti Discrimination Legislation • Telecommunications Act • Occupational Health and Safety Legislation • Freedom of Information • Environment

UNIT	ICTTC213A Provide support and assistance to customers on matters relating to a particular product(s)/service
-------------	---

EVIDENCE GUIDE

Critical aspects of evidence	<ul style="list-style-type: none"> • Evidence of competency is best obtained by observing activities in an operational environment under normal working conditions. If this is not practicable, observations in a realistic simulated environment may be substituted. • Specific requirements for competency against a particular context, as defined in the range of variables, may vary between enterprises and for the particular learning strategy adopted. • Skills and knowledge evidence may be completion of training courses or on-the-job learning. • Details of Skills and Knowledge listed for this unit are specified in the ‘Telecommunication Training Package–Skills and Knowledge’ booklet by the code indicated. • Accurate identification and verification of customer need. • Provision of effective and timely support and assistance in satisfying customer need. • Accessing systems/manuals to determine answer to customer inquiry. • Activation of systems to provide information/assistance where required. 		
Interdependent assessment of units	<p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.</p>		
Underpinning skills and knowledge	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%; padding-right: 10px;"> <p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> • KC026- Basic Problem Solving • KC050- Enterprise Policies, Procedures and Guidelines • KC052- Enterprise Mission, Business Goals and Standards • KC053- Specific Work Role and Relationships • KC056- Enterprise Organisational Structure • KC057- Enterprise Information Systems • KC064- Enterprise Protocols Associated with Customer Service • KC066- Operational Environment: Customer Base, Company Products and Services • KC068- Operational Systems • KC102- Quality and Continuous Improvement Processes • KC108- Occupational Health and Safety Standards • KC110- Stress Management Awareness • KC111- Workplace Ergonomics • KC112- Overview of Call Centre Operations </td> <td style="vertical-align: top; width: 50%;"> <p>Underpinning Skills:</p> <ul style="list-style-type: none"> • SC001- Basic Oral and Written Communication Skills • SC004- Basic Customer Service Skills • SC015- Empathy • SC016- Listening Skills • SC017- Interpersonal Skills </td> </tr> </table>	<p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> • KC026- Basic Problem Solving • KC050- Enterprise Policies, Procedures and Guidelines • KC052- Enterprise Mission, Business Goals and Standards • KC053- Specific Work Role and Relationships • KC056- Enterprise Organisational Structure • KC057- Enterprise Information Systems • KC064- Enterprise Protocols Associated with Customer Service • KC066- Operational Environment: Customer Base, Company Products and Services • KC068- Operational Systems • KC102- Quality and Continuous Improvement Processes • KC108- Occupational Health and Safety Standards • KC110- Stress Management Awareness • KC111- Workplace Ergonomics • KC112- Overview of Call Centre Operations 	<p>Underpinning Skills:</p> <ul style="list-style-type: none"> • SC001- Basic Oral and Written Communication Skills • SC004- Basic Customer Service Skills • SC015- Empathy • SC016- Listening Skills • SC017- Interpersonal Skills
<p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> • KC026- Basic Problem Solving • KC050- Enterprise Policies, Procedures and Guidelines • KC052- Enterprise Mission, Business Goals and Standards • KC053- Specific Work Role and Relationships • KC056- Enterprise Organisational Structure • KC057- Enterprise Information Systems • KC064- Enterprise Protocols Associated with Customer Service • KC066- Operational Environment: Customer Base, Company Products and Services • KC068- Operational Systems • KC102- Quality and Continuous Improvement Processes • KC108- Occupational Health and Safety Standards • KC110- Stress Management Awareness • KC111- Workplace Ergonomics • KC112- Overview of Call Centre Operations 	<p>Underpinning Skills:</p> <ul style="list-style-type: none"> • SC001- Basic Oral and Written Communication Skills • SC004- Basic Customer Service Skills • SC015- Empathy • SC016- Listening Skills • SC017- Interpersonal Skills 		

Resources	Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for one’s own outputs in relation to specified quality standards; and • take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	3	3	3	1	2	2

UNIT	ICTTC214A Process general inquiries from customers and provide associated support and assistance
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit applies to handling of general inquiries from customers related to provision and maintenance of an enterprise product and/or service. It involves follow-up with the customer on satisfaction of support provided
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify and clarify customer inquiry.	<ol style="list-style-type: none"> 1. Customer is queried for information related to inquiry. 2. Type of support/assistance/information required by the customer is determined. 3. Customer records are accessed where required. 4. Further information is sought from the customer where needed.
2. Satisfy customer need	<ol style="list-style-type: none"> 1. Information required by the customer is accessed and provided in an efficient and timely manner. 2. Possible options to resolve inquiry are determined. 3. Access to relevant specialist advice is sought as appropriate. 4. Systems/manuals are researched to locate information sought. 5. Information is provided to the customer in a clear and concise manner. 6. Inquiry is referred to appropriate person/area where solution is complex or affects enterprise policy. 7. Customer is informed of referral details. 8. Work is undertaken in manner which is safe to self and to fellow workers.
3. Follow-up customer on inquiry resolution.	<ol style="list-style-type: none"> 1. Contact is made with the customer to ensure satisfaction with support/assistance provided. 2. Further information is provided if necessary. 3. Contracts are struck with customer to undertake further research where dissatisfaction occurs.

UNIT	ICTTC214A Process general inquiries from customers and provide associated support and assistance
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Call Centre	<p>Is an organisational unit that acts as a focal point for communication between organisations and customers using live voice telephony and/or information technology to meet service purposes</p> <p>Call centres exist across a range of industries and industry sectors. Examples include:</p> <ul style="list-style-type: none"> • Telecommunications companies—product sales and marketing, customer service and account inquiries, directory services, call assistance. • Computer software and hardware companies—product sales and information, product and customer support. • Banking sector—marketing services, customer funds transfer, loan applications, customer service. • Insurance companies—customer service, product sales, new policy applications, renewals. • Retailers and suppliers—marketing services and product, after sales support, dealer care, product sales and delivery. • Travel industry—reservations, information, customer support, loyalty programs. • Market research companies. • Charity organisations—financial support and product sales. • Mercantile agencies. • Credit reporting bureaus. • Government organisations—government service inquiries, government benefit issues
The operational environment of a call centre	<p>Operations will vary significantly from enterprise to enterprise and will be influenced by</p> <ul style="list-style-type: none"> • regulatory environment in which the enterprise and/or industry operates • enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> – quality management – corporate conduct/ethics – people – health and safety – equal employment opportunity – procedures and standards specified by process owners, customers, or suppliers

UNIT	ICTTC214A Process general inquiries from customers and provide associated support and assistance
Requirements of the environment	<ul style="list-style-type: none"> • business rules • accountabilities • stress management guidelines • ergonomic guidelines • authorising delegations • service memoranda of understanding/service delivery agreements • performance measures • targets • agreed service delivery scope and charter
The defined environment of the relationship	<ul style="list-style-type: none"> • stakeholders • business context • technology • level of complexity of customers and products
Support and assistance	May relate to assistance with product use, information relating to enterprise product/services, product/service costs, after sales support, warranty details and information, service timing/timetables
Quality and continuous improvement	Defined by the enterprise and can apply to variation, customer service, standards, service delivery, performance, process, productivity, financial, goal setting, resource management
Customer records	Normally maintained in a computerised system specific to the enterprise but may take the form of paper/card related systems
Information	May be obtained from enterprise systems, customer records, operational manuals
Specialist staff	May be designated technical, engineering, sales, marketing staff
Referral procedures	Will vary from enterprise to enterprise
Referral details	May include name and/or designation of specialist person, time of call back and nature of further information
Relevant legislation, codes, regulations and standards	<ul style="list-style-type: none"> • Privacy Act • EEO and Anti Discrimination Legislation • Telecommunications Act • Occupational Health and Safety Legislation • Freedom of Information • Environment

UNIT

ICTTC214A Process general inquiries from customers and provide associated support and assistance

EVIDENCE GUIDE

Critical aspects of evidence

- Accurate identification and verification of customer need.
- Accessing systems/manuals to determine answer to customer inquiry.
- Identification of specialist support within the enterprise.
- Consideration of options for meeting inquiry.
- Provision of effective and timely support and assistance in satisfying customer need.
- Activation of systems to provide information/assistance where required.
- Effective follow-up of customer, post inquiry.
- Projection of a professional image in representing the company.
- Demonstration of all related occupational health and safety requirements and work practices.
- Contributes in a positive manner to the overall improvement of team performance.
- Applies principles of quality and continuous improvement in all operational activities.

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

Underpinning skills and knowledge**Underpinning Knowledge:**

- KC028 Problem Solving Skills
- KC050- Enterprise Policies, Procedures and Guidelines
- KC052- Enterprise Mission, Business Goals and Standards
- KC053- Specific Work Role and Relationships
- KC056- Enterprise Organisational Structure
- KC057 Enterprise Information Systems
- KC064 Enterprise Protocols Associated with Customer Service
- KC066 Operational Environment: Customer Base, Company Products and Services
- KC068 Operational Systems
- KC102 Quality and Continuous Improvement Processes
- KC108 Occupational Health and Safety Standards

Underpinning Skills:

- SC002 Oral and Written Communication Skills
- SC005 Customer Service Skills
- SC015 Empathy
- SC016 Listening Skills
- SC017 Interpersonal Skills
- SC040 Teamwork
- SC042 Conflict Resolution

UNIT	ICTTC214A Process general inquiries from customers and provide associated support and assistance
-------------	---

Resources	Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for one’s own outputs in relation to specified quality standards; and • take limited responsibility for the quantity and quality of the output of others.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	1	2	2

UNIT	ICTTC217A Action reports of product/service faults reported by customers
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	Product/service faults are normally received within the customer service/call centre environment. The call centre operative has a responsibility to record the fault and organise appropriate repair.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Receive fault report	<ol style="list-style-type: none"> 1. Fault report is received and verified with the customer. 2. Fault details are recorded to accurately reflect the information provided by the customer. 3. Systems are interrogated to capture customer product/service information and previous fault history. 4. Warranty and service agreements are identified and coverage established. 5. Customer details recorded on enterprise systems are verified and confirmed with the customer.
2. Perform analysis and tests of customer product/service where practicable.	<ol style="list-style-type: none"> 1. Cause of fault/problem is verified with customer to ensure enterprise responsibility. 2. Relevant tests are performed to identify nature of fault and likely action needed. 3. Appropriate specialists are consulted if fault analysis is inconclusive.
3. Resolve customer difficulties	<ol style="list-style-type: none"> 1. Nature of actual fault is determined as far as is possible. 2. Advice is provided to customer as to repair action necessary where appropriate. 3. Action is initiated to arrange repair . 4. Customers are advised of likely repair charges. 5. Repair priorities are determined. 6. Need for staff call-out is determined and initiated where appropriate. 7. Appointments are arranged and agreed between the parties in the event of site visit. 8. Faults are assigned to specialist staff using appropriate decision tools and systems.
4. Provide feedback to the customer during and at the completion of the repair process.	<ol style="list-style-type: none"> 1. Feedback calls are made to customers as required. 2. Customer satisfaction with progress and/or repair is determined. 3. Outstanding issues that customers are not satisfied with are recognised and resolved.

UNIT	ICTTC217A Action reports of product/service faults reported by customers
-------------	--

5. Complete fault records	<ol style="list-style-type: none"> 1. Customer records are amended as required. 2. Fault history record is updated. 3. Fault clearance details are obtained and entered on the system. 4. Work is completed in a manner safe to self and fellow workers.
---------------------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Call Centre

An organisational unit that acts as a focal point for communication between organisations and customers using live voice telephony and/or information technology to meet service purposes

Call centres exist across a range of industries and industry sectors. Examples include:

- Telecommunications companies—product sales and marketing, customer service and account inquiries, directory services, call assistance.
- Computer software and hardware companies—product sales and information, product and customer support.
- Banking sector—marketing services, customer funds transfer, loan applications, customer service.
- Insurance companies—customer service, product sales, new policy applications, renewals.
- Retailers and suppliers—marketing services and product, after sales support, dealer care, product sales and delivery.
- Travel industry—reservations, information, customer support, loyalty programs.
- Market research companies.
- Charity organisations—financial support and product sales.
- Mercantile agencies.
- Credit reporting bureaus.
- Government organisations—government service inquiries, government benefit issues

UNIT	ICTTC217A Action reports of product/service faults reported by customers
<p>The operational environment of a call centre</p>	<p>Operations will vary significantly from enterprise to enterprise and will be influenced by</p> <ul style="list-style-type: none"> • Regulatory environment in which the enterprise and/or industry operates • Enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> – Quality management – Corporate conduct/ethics – People – Health and safety – Equal employment opportunity – Escalated service difficulties – Customer complaints – Procedures and standards specified by process owners, customers, or suppliers
<p>Requirements of the environment</p>	<ul style="list-style-type: none"> • Business rules • Accountabilities • Stress management guidelines • Ergonomic guidelines • Authorising delegations • Service memoranda of understanding/service delivery agreements • Performance measures • Targets • Agreed service delivery scope and charter
<p>The defined environment of the relationship</p>	<ul style="list-style-type: none"> • Stakeholders • Business context • Technology • Level of complexity of customers and products

UNIT	ICTTC217A Action reports of product/service faults reported by customers
Fault	Is an occurrence that degrades the level of service a customer should experience from enterprise product, equipment or service.
Fault report	Is the notification by a customer that the product/service has been rendered unusable or unsatisfactory because it does not meet specification.
Decision tools	May include: decision 'trees', matrices, flowcharts
Repair	May be undertaken in enterprise workshop environment, vendor workshop or on site.
Service assurance obligations	Include but are not limited to those prescribed in warranties, contracts and basic service agreements
Quality and continuous improvement	Is defined by the enterprise and can apply to variation, customer service, standards, service delivery, performance, process, productivity, financial, goal setting, resource management.
After hours repair	Is determined by relevant service agreements and/or enterprise policy in relation to repair priorities and specialist staff availability.
Specialist staff	May be enterprise staff, product/service 'experts', or contract staff.
Relevant legislation, codes, regulations and standards	<ul style="list-style-type: none"> • Privacy Act • EEO and Anti Discrimination Legislation • Telecommunications Act • Occupational Health and Safety Legislation • Industrial Awards and Agreements Including Registered Enterprise Agreements • Trade Practices Act

UNIT	ICTTC217A Action reports of product/service faults reported by customers
-------------	---

EVIDENCE GUIDE

Critical aspects of evidence	<ul style="list-style-type: none"> • Uses effective communication skills to determine nature of fault. • Interrogates system effectively to gain data relevant to the fault. • Determines where fault resolution should rest. • Accurately determines fault priority. • Accurately provides all relevant data to person to which the fault has been allocated. • Maintains effective communication links with customers at all times. • Organises efficient and effective feedback. • Projection of a professional image in representing the company. • Demonstration of all related occupational health and safety requirements and work practices. • Contributes in a positive manner to the overall improvement of team performance. • Applies principles of quality and continuous improvement in all operational activities. 		
Interdependent assessment of units	<p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.</p>		
Underpinning skills and knowledge	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top; padding: 5px;"> Underpinning Knowledge: <ul style="list-style-type: none"> • KC027 Problem Solving Processes • KC050 Enterprise Policies, Procedures and Guidelines • KC051 Enterprise Culture and Values • KC052 Enterprise Mission, Business Goals and Standards • KC053 Specific Work Role and Relationships • KC056 Enterprise Organisational Structure • KC059 Enterprise Fault Repair Policy • KC064 Enterprise Protocols Associated With Customer Service • KC066 Operational Environment: Customer Base, Company Products and Services • KC069 Operational Systems and Technology • KC102 Quality and Continuous Improvement Processes • KC108 Occupational Health and Safety Standards </td> <td style="width: 50%; vertical-align: top; padding: 5px;"> Underpinning Skills: <ul style="list-style-type: none"> • SC002 Oral And Written Communication Skills • SC005 Customer Service Skills • SC028 Problem Solving Skills • SC040 Teamwork • SC042 Conflict Resolution </td> </tr> </table>	Underpinning Knowledge: <ul style="list-style-type: none"> • KC027 Problem Solving Processes • KC050 Enterprise Policies, Procedures and Guidelines • KC051 Enterprise Culture and Values • KC052 Enterprise Mission, Business Goals and Standards • KC053 Specific Work Role and Relationships • KC056 Enterprise Organisational Structure • KC059 Enterprise Fault Repair Policy • KC064 Enterprise Protocols Associated With Customer Service • KC066 Operational Environment: Customer Base, Company Products and Services • KC069 Operational Systems and Technology • KC102 Quality and Continuous Improvement Processes • KC108 Occupational Health and Safety Standards 	Underpinning Skills: <ul style="list-style-type: none"> • SC002 Oral And Written Communication Skills • SC005 Customer Service Skills • SC028 Problem Solving Skills • SC040 Teamwork • SC042 Conflict Resolution
Underpinning Knowledge: <ul style="list-style-type: none"> • KC027 Problem Solving Processes • KC050 Enterprise Policies, Procedures and Guidelines • KC051 Enterprise Culture and Values • KC052 Enterprise Mission, Business Goals and Standards • KC053 Specific Work Role and Relationships • KC056 Enterprise Organisational Structure • KC059 Enterprise Fault Repair Policy • KC064 Enterprise Protocols Associated With Customer Service • KC066 Operational Environment: Customer Base, Company Products and Services • KC069 Operational Systems and Technology • KC102 Quality and Continuous Improvement Processes • KC108 Occupational Health and Safety Standards 	Underpinning Skills: <ul style="list-style-type: none"> • SC002 Oral And Written Communication Skills • SC005 Customer Service Skills • SC028 Problem Solving Skills • SC040 Teamwork • SC042 Conflict Resolution 		
Resources	<p>Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.</p>		

UNIT	ICTTC217A Action reports of product/service faults reported by customers
-------------	--

Consistency

Evidence of competency is best obtained by observing activities in an operational environment under normal working conditions. If this is not practicable, observations in a realistic simulated environment may be substituted.

Specific requirements for competency against a particular context, as defined in the range of variables, may vary between enterprises and for the particular learning strategy adopted.

Skills and knowledge evidence may be completion of training courses or on-the-job learning.

Details of Skills and Knowledge listed for this unit are specified in the ‘Telecommunication Training Package Skills and Knowledge’ booklet by the code indicated.

Context

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
-------------------------	--	--	--	--	--	--

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	1	3	2

UNIT	ICTTC218A Negotiate with customers on major product/service faults
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit recognises the role in dealing with customers where a major fault and/or service difficulty occurs.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify major fault and/or service difficulty	<ol style="list-style-type: none"> 1. Fault patterns are observed to identify wider problem. 2. Customer complaints are examined to identify trends. 3. Enterprise staff record details of product faults. 4. Details relating to service/system outages are notified.
2. Determine impact of fault/service difficulty.	<ol style="list-style-type: none"> 1. Enterprise area responsible for problem is contacted to ascertain extent and nature of problem. 2. Details relating to fault/service difficulty are analysed for impact on customers. 3. Customer databases are interrogated to identify customers affected. 4. Action planned to rectify fault/service difficulty is ascertained.
3. Plan action to inform customers.	<ol style="list-style-type: none"> 1. Available options for informing customers are assessed. 2. Decision as to information to be provided to customers is made in conjunction where necessary with specialist staff. 3. Strategies including resource allocation are developed for informing customers in the most efficient and timely manner possible. 4. Priority customers are identified. 5. Customer service agreements are researched and action initiated to avoid breaking of contractual arrangements where applicable. 6. Breaches of agreements are notified to the appropriate area for decision as to planned action. 7. Need for staff call-out is determined and initiated where appropriate.

UNIT	
ICTTC218A Negotiate with customers on major product/service faults	
4. Inform customers of planned action.	<ol style="list-style-type: none"> 1. Advice is provided to customers as to problem and planned repair action. 2. Customer difficulties caused by the fault/service difficulty are discussed with the customer and alternative arrangements negotiated and agreed where possible. 3. Customer needs that cannot be resolved are noted and brought to the attention of the appropriate enterprise organisational unit. 4. Appointments are arranged in the event of site visit. 5. Appropriate apologies are provided. 6. Actions necessary as a result of service agreement breaches are negotiated and agreed with the customer. 7. Appropriate parties are notified of customer reaction and needs where a negotiated position cannot be reached.
5. Process incoming reports/complaints resulting from major fault and/or service difficulty.	<ol style="list-style-type: none"> 1. Nature of the fault/difficulty is discussed with the customer. 2. Fault/difficulty is analysed to ensure that it is related to identified major fault/service difficulty. 3. Faults not allied to known fault/service difficulty are processed in accordance with enterprise policy. 4. Checks are made that the particular complainant has been identified as an affected customer. 5. Customer is informed of planned action and special needs are negotiated where required. 6. Work is undertaken in manner which is safe to self and to fellow workers.
6. Provide feedback to the customer during and at the completion of the repair process.	<ol style="list-style-type: none"> 1. Feedback calls are made to customers as required. 2. Customer satisfaction with progress and/or repair is determined. 3. Outstanding issues that customers are not satisfied with are recognised and resolved.
7. Follow-up customer on inquiry resolution.	<ol style="list-style-type: none"> 1. Customers are contacted after the event to determine satisfaction with support/assistance provided. 2. Further information/assistance is provided to the customer if necessary. 3. Contracts are struck with customer to undertake further research where dissatisfaction occurs.

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Major fault/service difficulty

Is an occurrence which impacts across a whole product, range of products, service/system failures

Service assurance obligations

Include but are not limited to those prescribed in warranties, contracts and basic service agreements.

UNIT	ICTTC218A Negotiate with customers on major product/service faults
After hours repair	Is determined by relevant service agreements and/or enterprise policy in relation to repair priorities and specialist staff availability.
Customer records	Are normally maintained in a computerised system specific to the enterprise but may take the form of paper/card related systems
Call Centre	<p>May be an organisational unit that acts as a focal point for communication between organisations and customers using live voice telephony and/or information technology to meet service purposes</p> <p>Call centres exist across a range of industries and industry sectors. Examples include:</p> <ul style="list-style-type: none"> • Telecommunications companies—product sales and marketing, customer service and account inquiries, directory services, call assistance. • Computer software and hardware companies—product sales and information, product and customer support. • Banking sector—marketing services, customer funds transfer, loan applications, customer service. • Insurance companies—customer service, product sales, new policy applications, renewals. • Retailers and suppliers—marketing services and product, after sales support, dealer care, product sales and delivery. • Travel industry—reservations, information, customer support, loyalty programs. • Market research companies. • Charity organisations—financial support and product sales. • Mercantile agencies. • Credit reporting bureaus. • Government organisations—government service inquiries, government benefit issues
The operational environment of a call centre	<p>Operations will vary significantly from enterprise to enterprise and will be influenced by</p> <ul style="list-style-type: none"> • Regulatory environment in which the enterprise and/or industry operates • Enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> – Quality management – Corporate conduct/ethics – People – Health and safety – Equal employment opportunity – Escalated service difficulties – Customer complaints – Procedures and standards specified by process owners, customers, or suppliers

UNIT	ICTTC218A Negotiate with customers on major product/service faults
Requirements of the environment	<ul style="list-style-type: none"> • Business rules • Accountabilities • Stress management guidelines • Ergonomic guidelines • Authorising delegations • Service memoranda of understanding/service delivery agreements • Performance measures • Targets • Agreed service delivery scope and charter
The defined environment of the relationship	<ul style="list-style-type: none"> • Stakeholders • Business context • Technology • Level of complexity of customers and products
Quality and continuous improvement	Is defined by the enterprise and can apply to variation, customer service, standards, service delivery, performance, process, productivity, financial, goal setting, resource management.
Information	May be obtained from enterprise systems, customer records, operational manuals.
Specialist staff	May be designated technical, engineering, sales, marketing staff within the enterprise.
Enterprise actions	May be non-provision of product/service, delays in delivery or provision of product/service, operational errors, emergencies, staff attitude, system failures
Compensatory action	Dependent entirely on enterprise policy
Apologies	Provided to customer are also dependent on policy of each particular enterprise
Relevant legislation, codes, regulations and standards	<ul style="list-style-type: none"> • Privacy Act • EEO and Anti Discrimination Legislation • Telecommunications Act • Occupational Health and Safety Legislation • Freedom of Information • Environment • Trade Practices Act

UNIT

ICTTC218A Negotiate with customers on major product/service faults

EVIDENCE GUIDE

Critical aspects of evidence

- Recognition of fault patterns and trends.
- Prompt and efficient reaction to major fault/service difficulty.
- Recognition of customer impact.
- Efficient and effective interrogation of customer databases.
- Development of options for dealing with affected customers.
- Identification of specialist support within the enterprise.
- Development of strategies for approaching customers in the quickest and most effective manner.
- Analysis and identification of impact on the enterprise of service agreements with customers.
- Successful negotiation with customer and satisfaction of customer need.
- Successful defence of enterprise actions.
- Satisfactory negotiation with customer to overcome problems caused.
- Regular provision of customer feedback during the repair process.
- Effective follow-up of customer satisfaction post repair.
- Projection of a professional image in representing the company.
- Demonstration of all related occupational health and safety requirements and work practices.
- Contributes in a positive manner to the overall improvement of team performance.
- Applies principles of quality and continuous improvement in all operational activities.

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

Underpinning skills and knowledge**Underpinning Knowledge:**

- KC030- Sales Principles
- KC031- Marketing Principles and Practice
- KC043- Analytical Thinking
- KC044- Identification of Signals by the Customer
- KC049- Estimate/Quoting Procedures
- KC050- Enterprise Policies, Procedures and Guidelines
- KC052- Enterprise Mission, Business Goals and Standards
- KC053- Specific Work Role and Relationships
- KC056- Enterprise Organisational Structure
- KC064- Enterprise Protocols Associated with Customer Service

Underpinning Skills:

- SC003- Advanced Oral and Written Communication Skills
- SC006- Advanced Customer Service Skills
- SC016- Listening Skills
- SC017- Interpersonal Skills
- SC018- Negotiation Skills
- SC021- Initiative Skills
- SC022- Influencing
- SC023- Tenacity
- SC028- Problem Solving Skills
- SC029- Selling Skills
- SC039- Networking Skills
- SC040- Teamwork
- SC042- Conflict Resolution

Resources

Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

UNIT	ICTTC218A Negotiate with customers on major product/service faults
-------------	--

Context

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one’s own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	2	2	2	2	2

UNIT	ICTTC220A Resolve customer complaints
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	Customer complaints are normally received within the customer service/call centre environment. The call centre operative has a responsibility to resolve that complaint wherever possible to the satisfaction of the customer or to escalate the problem promptly and efficiently to specialist staff.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse the complaint to establish the underlying cause	<ol style="list-style-type: none"> 1. The complaint is established through active listening, questioning and empathy. 2. The impact of the complaint on the customer is assessed to respond appropriately. 3. Systems are interrogated to capture data which relates directly to the complaint as stated by the customer. 4. The customer is queried for information related to the complaint and possible cause(s). 5. Previous experience with similar complaints is applied to the situation. 6. Data captured is analysed to provide further information about possible cause(s). 7. The underlying cause of the complaint is identified, summarised and agreed with the customer.
2. Comply with enterprise standards and procedures when resolving complaints.	<ol style="list-style-type: none"> 1. An appropriate level of ownership of the customer complaint is demonstrated. 2. Appropriate records are maintained for future reference.
3. Determine and agree appropriate action to resolve the complaint.	<ol style="list-style-type: none"> 1. Possible options to resolve the complaint are determined and reviewed within enterprise constraints. 2. A preferred plan of action to resolve the complaint is agreed and confirmed with both the customer and stakeholders. 3. A commitment, made to the customer, is followed through as part of the plan of action. 4. The complaint is referred to the next highest authority in accordance with standard procedures if necessary. 5. All data relevant to the complaint is given to person dealing with the escalated complaint.
4. Action agreed plan to resolve the complaint.	<ol style="list-style-type: none"> 1. Implementation of agreed plan to resolve the complaint is coordinated. 2. Systems and records involved in implementing the plan are actioned. 3. Additional customer information is identified to resolve the complaint. 4. Work is undertaken in manner which is safe to self and to fellow workers.
5. Evaluate and communicate effectiveness of action	<ol style="list-style-type: none"> 1. Implementation of the action plan to resolve the complaint is monitored. 2. Feedback on progress or resolution is provided to the customer. 3. Customer satisfaction, on the resolution of the complaint is determined. 4. Feedback is sought from group/team leader on escalated issues if required.

UNIT	ICTTC220A Resolve customer complaints
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Call Centre	<ul style="list-style-type: none"> • Telecommunications companies—product sales and marketing, customer service and account inquiries, directory services, call assistance. • Computer software and hardware companies—product sales and information, product and customer support. • Banking sector—marketing services, customer funds transfer, loan applications, customer service. • Insurance companies—customer service, product sales, new policy applications, renewals. • Retailers and suppliers—marketing services and product, after sales support, dealer care, product sales and delivery. • Travel industry—reservations, information, customer support, loyalty programs. • Market research companies. • Charity organisations—financial support and product sales. • Mercantile agencies. • Credit reporting bureaus. • Government organisations—government service inquiries, government benefit issues.
Operational environment	<ul style="list-style-type: none"> • Regulatory environment in which the enterprise and/or industry operates • Enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> – Quality management – Corporate conduct/ethics – People – Health and safety – Equal employment opportunity – Escalated service difficulties – Customer complaint – Procedures and standards specified by process owners, customers or suppliers
Requirements of the environment	<ul style="list-style-type: none"> • Business rules • Accountabilities • Stress management guidelines • Ergonomic guidelines • Authorising delegations • Service memoranda of understanding / service delivery agreements • Performance measures • Targets • Agreed service delivery scope and charter

UNIT	ICTTC220A Resolve customer complaints
The defined environment	<ul style="list-style-type: none"> • Stakeholders • Business context • Technology • Level of complexity of customers and products
Complaint	Any expression of dissatisfaction with enterprise product and/or service by a customer
Customer	A user, purchaser, or beneficiary of a service, product or process and may be internal or external to the enterprise and may include colleagues.
Quality and continuous improvement	Defined by the enterprise and can apply to variation, customer service, standards, service delivery, performance, process, productivity, financial, goal setting, resource management.
Active listening	Involves giving your full attention to the person who is speaking and responding in a way that lets them know you have listened and understood their message as they have intended.
Empathy	The ability to identify oneself mentally and emotionally with, and so understand, the other person.
A stakeholder	<p>Any person or organisation with an interest or involvement in the implementation of the initiative, product, service, or system and may include</p> <ul style="list-style-type: none"> • Managers • Staff members • Unions • Customers • Suppliers
Escalation	Of a complaint will most often be to a group/team leader or the most appropriate person/area, but may also be as prescribed by the enterprise complaints policy and procedures
Appropriate records	May be paper based, electronic, or there may be no records required at all.
A commitment	A promised course of action designed to meet the customer's needs. It includes building rapport, keeping promises, keeping the customer informed, doing it right the first time, owning the customer's request, responding to the customer's request with operational efficiency.
Relevant legislation, codes, regulations and standards	<ul style="list-style-type: none"> • Privacy Act • EEO and Anti Discrimination Legislation • Telecommunications Act • Occupational Health and Safety Legislation • Industrial Awards and Agreements Including Registered Enterprise Agreements • Trade Practices Act

UNIT	ICTTC220A Resolve customer complaints
-------------	---

EVIDENCE GUIDE

Critical aspects of evidence	<ul style="list-style-type: none"> Uses effective communication skills to determine nature of complaint accurately. Interrogates system effectively to gain data relevant to the complaint. Determines whether the complaint resolution is within capability or should be escalated. Satisfies customer complaints within capability, time, quality and cost parameters. Initiates escalation procedures in accordance with enterprise policy and practices. Accurately provides all relevant data to person to which the problem has been escalated. Maintains effective communication links with customers, staff and management. Projection of a professional image in representing the company. Demonstration of all related occupational health and safety requirements and work practices. Contributes in a positive manner to the overall improvement of team performance. Applies principles of quality and continuous improvement in all operational activities. 		
Interdependent assessment of units	<p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.</p>		
Underpinning skills and knowledge	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;"> <p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> KC027 Problem Solving Processes KC051 Enterprise Culture and Values KC052 Enterprise Mission, Business Goals and Standards KC053 Specific Work Role and Relationships KC064 Enterprise Protocols Associated With Customer Service KC066 Operational Environment: Customer Base, Company Products and Services KC069 Operational Systems and Technology KC102 Quality and Continuous Improvement Processes KC108 Occupational Health and Safety Standards </td> <td style="width: 50%; padding: 5px;"> <p>Underpinning Skills:</p> <ul style="list-style-type: none"> SC002 Oral and Written Communication Skills SC005 Customer Service Skills SC015 Empathy SC040 Teamwork SC041 Dealing With Emotion SC042 Conflict Resolution </td> </tr> </table>	<p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> KC027 Problem Solving Processes KC051 Enterprise Culture and Values KC052 Enterprise Mission, Business Goals and Standards KC053 Specific Work Role and Relationships KC064 Enterprise Protocols Associated With Customer Service KC066 Operational Environment: Customer Base, Company Products and Services KC069 Operational Systems and Technology KC102 Quality and Continuous Improvement Processes KC108 Occupational Health and Safety Standards 	<p>Underpinning Skills:</p> <ul style="list-style-type: none"> SC002 Oral and Written Communication Skills SC005 Customer Service Skills SC015 Empathy SC040 Teamwork SC041 Dealing With Emotion SC042 Conflict Resolution
<p>Underpinning Knowledge:</p> <ul style="list-style-type: none"> KC027 Problem Solving Processes KC051 Enterprise Culture and Values KC052 Enterprise Mission, Business Goals and Standards KC053 Specific Work Role and Relationships KC064 Enterprise Protocols Associated With Customer Service KC066 Operational Environment: Customer Base, Company Products and Services KC069 Operational Systems and Technology KC102 Quality and Continuous Improvement Processes KC108 Occupational Health and Safety Standards 	<p>Underpinning Skills:</p> <ul style="list-style-type: none"> SC002 Oral and Written Communication Skills SC005 Customer Service Skills SC015 Empathy SC040 Teamwork SC041 Dealing With Emotion SC042 Conflict Resolution 		
Resources	<p>Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.</p>		
Consistency	<p>Evidence of competency is best obtained by observing activities in an operational environment under normal working conditions. If this is not practicable, observations in a realistic simulated environment may be substituted.</p> <p>Specific requirements for competency against a particular context, as defined in the range of variables, may vary between enterprises and for the particular learning strategy adopted.</p> <p>Skills and knowledge evidence may be completion of training courses or on-the-job learning.</p> <p>Details of Skills and Knowledge listed for this unit are specified in the ‘Telecommunication Training Package Skills and Knowledge’ booklet by the code indicated.</p>		

UNIT

ICTTC220A Resolve customer complaints**Context**

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for one's own outputs in relation to specified quality standards; and
- take limited responsibility for the quantity and quality of the output of others.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	2	3	1	3	2

UNIT	ICTTC221A Resolve the more complex customer complaints
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit describes the resolution of the more complex and spurious complaints related to customer product/service. At this level an operator can be called upon to defend the organisation from undue and unwarranted criticism
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Receive and respond to complaints.	<ol style="list-style-type: none"> 1. Customer complaint is received directly from customer or escalated from another staff member. 2. Complaint is established either in discussions with staff member and/or customer. 3. Any action taken to date to resolve the complaint is ascertained and analysed for impact. 4. Systems are interrogated to capture data relevant to the complaint. 5. Work is undertaken in manner which is safe to self and to fellow workers.
2. Develop plans for dealing with complaint	<ol style="list-style-type: none"> 1. Possible options to resolve complaint are determined and discussed with staff member where appropriate. 2. Specialist advice is sought where necessary. 3. Plan of action to resolve the complaint is developed in consultation with others where necessary.
3. Negotiate complaint resolution with customer.	<ol style="list-style-type: none"> 1. Action necessary to resolve the complaint is discussed and negotiated with the customer. 2. Agreements reached with the customer are recorded and action taken to action agreement within agreed timeframes. 3. Follow-up action is initiated to ensure that agreements with customers are implemented. 4. Full documentation of actions proposed and customer attitude and demands are completed and forwarded to appropriate enterprise organisational unit for further action where agreements cannot be reached with the customer. 5. Appropriate apologies are given where appropriate. 6. Compensatory action sought by the customer is noted and brought to attention of designated enterprise area.
4. Negotiate with customers whose complaints cannot be resolved because of enterprise policy.	<ol style="list-style-type: none"> 1. Variation between customer demand/reason for complaint and policy is examined. 2. Possibility of policy change is explored. 3. Options to meet customer needs within policy bounds are explored and discussed as appropriate with specialist staff. 4. Customers are advised of enterprise policy and alternatives for overcoming problem (s) are discussed. 5. Decisions on action to be taken are made in conjunction with both customer and specialist staff. 6. Appropriate apologies are provided where customer need cannot be met.

UNIT	ICTTC221A Resolve the more complex customer complaints	
5. Follow-up customer on inquiry resolution	1. Customers are contacted after the event to determine satisfaction with support/assistance provided.	2. Further information/assistance is provided to the customer if necessary.
6. Analyse staff actions and level of customer support and identify training needs as appropriate.	1. Level of action and support/assistance provided to customer is assessed.	2. Need for further staff training is organised or provided.
	3. Feedback is sought from staff as to confidence, expertise required in dealing with problem.	4. Staff mentoring and coaching is provided both during and after customer incident.
	5. Provision of up-to-date manuals/instructions is verified and corrected as necessary.	

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Call Centre	<ul style="list-style-type: none"> • Telecommunications companies—product sales and marketing, customer service and account inquiries, directory services, call assistance. • Computer software and hardware companies—product sales and information, product and customer support. • Banking sector—marketing services, customer funds transfer, loan applications, customer service. • Insurance companies—customer service, product sales, new policy applications, renewals. • Retailers and suppliers—marketing services and product, after sales support, dealer care, product sales and delivery. • Travel industry—reservations, information, customer support, loyalty programs. • Market research companies. • Charity organisations—financial support and product sales. • Mercantile agencies. • Credit reporting bureaus. • Government organisations—government service inquiries, government benefit issues.
Operational environment	<p>Of a call centre operator will vary significantly from enterprise to enterprise and will be influenced by:</p> <ul style="list-style-type: none"> • Regulatory environment in which the enterprise and/or industry operates • Enterprise policies, procedures, business practices and guidelines, including, but not limited to, those covering: <ul style="list-style-type: none"> – Quality management – Corporate conduct/ethics – People – Health and safety – Qual employment opportunity – Escalated service difficulties – Customer complaints – Procedures and standards specified by process owners, customers or suppliers

UNIT	ICTTC221A Resolve the more complex customer complaints
Requirements of the environment	<ul style="list-style-type: none"> • Business rules • Accountabilities • Stress management guidelines • Ergonomic guidelines • Authorising delegations • Service memoranda of understanding / service delivery agreements • Performance measures • Targets • Agreed service delivery scope and charter
The defined environment	<ul style="list-style-type: none"> • Stakeholders • Business context • Technology • Level of complexity of customers and products
Complaint	Any expression of dissatisfaction with enterprise product and/or service by a customer.
Customer	A user, purchaser, or beneficiary of a service, product or process and may be internal or external to the enterprise and may include colleagues
Quality and continuous improvement	Defined by the enterprise and can apply to variation, customer service, standards, service delivery, performance, process, productivity, financial, goal setting, resource management.
Active listening	Involves giving your full attention to the person who is speaking and responding in a way that lets them know you have listened and understood their message as they have intended.
Empathy	The ability to identify oneself mentally and emotionally with, and so understand, the other person.
Escalation	Of a complaint will most often be to a group/team leader or the most appropriate person/area, but may also be as prescribed by the enterprise complaints policy and procedures
Commitment	A promised course of action designed to meet the customer's needs. It includes building rapport, keeping promises, keeping the customer informed, doing it right the first time, owning the customer's request, responding to the customer's request with operational efficiency.
Customer records	Normally maintained in a computerised system specific to the enterprise but may take the form of paper/card related systems.
Information	May be obtained from enterprise systems, customer records, operational manuals.
Specialist staff	May be designated technical, engineering, sales, marketing staff within the enterprise.
Compensatory action	Provision of and type provided is dependent entirely on enterprise policy.
Apologies	Provided to customer are also dependent on policy of each particular enterprise.
Relevant legislation, codes, regulations and standards include:	<ul style="list-style-type: none"> • Privacy Act • EEO and Anti Discrimination Legislation • Telecommunications Act • Occupational Health and Safety Legislation • Freedom of Information • Environment

UNIT			
	ICTTC221A Resolve the more complex customer complaints		
EVIDENCE GUIDE			
Critical aspects of evidence	<ul style="list-style-type: none"> • Development of options for resolving complaint. • Efficient and effective interrogation of customer and system records. • Identification and involvement of specialist support within the enterprise. • Development of plan of action in dealing with the complaint. • Satisfactory negotiation with customer to overcome problems caused. • Development of agreements with the customer to resolve problem. • Accurate documentation relating to all customer dealings in the event of problem non-resolution. • Effective follow-up of customer satisfaction post problem resolution. • Projection of a professional image in representing the company. • Demonstration of all related occupational health and safety requirements and work practices. • Contributes in a positive manner to the overall improvement of team performance. • Applies principles of quality and continuous improvement in all operational activities. 		
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.		
Underpinning skills and knowledge	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> Underpinning Knowledge: <ul style="list-style-type: none"> • KC053 Specific Work Role and Relationships • KC057 Enterprise Information Systems • KC058 Enterprise Customer Service Policy • KC064 Enterprise Protocols Associated With Customer Service • KC066 Operational Environment: Customer Base, Company Products and Services • KC068 Operational Systems • KC102 Quality and Continuous Improvement Processes • KC108 Occupational Health and Safety Standards </td> <td style="vertical-align: top; width: 50%; border-left: 1px solid black; padding-left: 10px;"> Underpinning Skills: <ul style="list-style-type: none"> • SC003 Advanced Oral and Written Communication Skills • SC006 Advanced Customer Service Skills • SC015 Empathy • SC016 Listening Skills • SC017 Interpersonal Skills • SC022 Influencing • SC023 Tenacity • SC025 Self Control • SC070 Mentoring Skills </td> </tr> </table>	Underpinning Knowledge: <ul style="list-style-type: none"> • KC053 Specific Work Role and Relationships • KC057 Enterprise Information Systems • KC058 Enterprise Customer Service Policy • KC064 Enterprise Protocols Associated With Customer Service • KC066 Operational Environment: Customer Base, Company Products and Services • KC068 Operational Systems • KC102 Quality and Continuous Improvement Processes • KC108 Occupational Health and Safety Standards 	Underpinning Skills: <ul style="list-style-type: none"> • SC003 Advanced Oral and Written Communication Skills • SC006 Advanced Customer Service Skills • SC015 Empathy • SC016 Listening Skills • SC017 Interpersonal Skills • SC022 Influencing • SC023 Tenacity • SC025 Self Control • SC070 Mentoring Skills
Underpinning Knowledge: <ul style="list-style-type: none"> • KC053 Specific Work Role and Relationships • KC057 Enterprise Information Systems • KC058 Enterprise Customer Service Policy • KC064 Enterprise Protocols Associated With Customer Service • KC066 Operational Environment: Customer Base, Company Products and Services • KC068 Operational Systems • KC102 Quality and Continuous Improvement Processes • KC108 Occupational Health and Safety Standards 	Underpinning Skills: <ul style="list-style-type: none"> • SC003 Advanced Oral and Written Communication Skills • SC006 Advanced Customer Service Skills • SC015 Empathy • SC016 Listening Skills • SC017 Interpersonal Skills • SC022 Influencing • SC023 Tenacity • SC025 Self Control • SC070 Mentoring Skills 		
Resources	Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made.		
Consistency	<p>Evidence of competency is best obtained by observing activities in an operational environment under normal working conditions. If this is not practicable, observations in a realistic simulated environment may be substituted.</p> <p>Specific requirements for competency against a particular context, as defined in the range of variables, may vary between enterprises and for the particular learning strategy adopted.</p> <p>Skills and knowledge evidence may be completion of training courses or on-the-job learning.</p> <p>Details of Skills and Knowledge listed for this unit are specified in the 'Telecommunication Training Package Skills and Knowledge' booklet by the code indicated.</p>		

UNIT	ICTTC221A Resolve the more complex customer complaints
-------------	--

Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for one’s own outputs in relation to specified quality standards; and • take limited responsibility for the quantity and quality of the output of others.
----------------	--

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	2	2	3	2

UNIT	ICAITU204A Locate and evaluate online information
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to use search engines to locate required information on the web and evaluate the content of sites for accuracy, currency and or authority.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Conduct a basic search using a search engine	<ol style="list-style-type: none"> 1. A search engine is located on the web and accessed. 2. Appropriate key words to locate the desired information are entered into the 'search' box. 3. Indices, catalogues and directories provided by the search engine are used. 4. Confidence and relevancy rankings are used where available 5. Search is queried or refined depending on outcomes of the search 6. Conduct a search within a web site using the internal search engine if appropriate.
2. Conduct an advanced search using search tools	<ol style="list-style-type: none"> 1. Boolean search techniques are used as required 2. Multiple or meta search tools are used with a range of key words 3. Advanced search features, provided in most search tools, are used when appropriate. 4. Search engines particular to field of knowledge are utilised 5. Related virtual community sites, clearinghouses, newsgroups, gofers are accessed 6. Search with domain names is conducted.

UNIT	ICAITU204A Locate and evaluate online information
-------------	--

- | | |
|--|--|
| <p>3. Evaluate information located</p> | <ol style="list-style-type: none"> 1. Accuracy of the information is determined by cross referencing with a number of sites, and through consideration of identifier information contained on the site 2. Checking the date that the page was last updated and or the properties of the site determine currency of information. 3. Site authority and information reliability is determined, including copyright statements, privacy statements, organisational information |
|--|--|

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Search Tools	A wide variety of search tools may be used. A selection of tools includes: Snap, Questfinder, Ask Jeeves, Google, metacrawler, Alt Vista, Excite, infoseek, Findlink, Northern Light, AOL Netfind, Hotbot, LookSmart, Yahoo, Netscape, Lycos, Open Text, WebCrawler, Go To Dot Com, Beaucoup, Meta Search, Search.com, Go2Network, Savvy Search, Profusion, Dogpile, Metagopher.
Searches	Custom searches, simple searches, directory searches, current new searches, web content searches (chat rooms, bulletin boards)
Hardware	Can include IT equipment of all types; <ul style="list-style-type: none"> • Work stations, PCs • Networks • Remote sites • Servers
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.

UNIT	ICAITU204A Locate and evaluate online information
-------------	--

Site authority

Means of checking site authority include

- checking the domain name, high confidence can generally be attributed to sites from the .gov and .edu sites where levels of public and private scrutiny are known.
- Known researchers, authors or sites are used.
- The likelihood of the information being available is assessed, for example a site purporting to contain highly confidential military technology specifications should be treated with caution.
- Identify the purpose and reputation of the site being accessed. Many sites identify affiliations with organisations that indicate site credibility. Eg this is the home page of the xxx institute, a collaborative joint research venture between the Commonwealth Government, xxx Corporation, and the University of ABC.
- Links to other sites are checked to determine credibility. Credible sites may have reciprocal links with sites that establish its bona fides. Eg a research institute should have reciprocal links to parent universities and individuals respected in the field
- Authors are identified on documents. This can be very helpful, especially if valid biographical information is presented.
- The intent of the information

Conduct secondary checks, where appropriate. A variety of techniques can be used including checking the phone book, ringing the organisation, checking registration information such as business names with appropriate authorities, professional bodies.

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to use search tools to locate information and make an informed assessment of the accuracy, currency, authority and reliability of the site and information located.

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

Underpinning skills and knowledge

Underpinning knowledge:

- Use a browser
- Use the Web
- Use research techniques
- Copyright and intellectual property
- The National Privacy Principles

Underpinning skills:

- Understanding key words
- Operating a PC
- Opening web sites

UNIT	ICAITU204A Locate and evaluate online information
-------------	--

Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Personal computer • Server • Remote web sites • Network • Browser software • Search tools <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Although simulated activities must closely reflect the workplace the candidate will be able to quickly demonstrate competence at locating information and using advanced search techniques.</p>
Context	<p>Work is likely to be carried out under direct supervision. Breadth, depth and complexity of knowledge and skills would prepare a person to perform a defined range of activities most of which may be routine and predictable.</p>

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	1	1	1	2	2

UNIT	ICAITU205A Select and employ software and hardware multimedia tools
FIELD	Use
DESCRIPTION	This unit defines the competency required to select and employ hardware and or software interactive media tools
RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.

ELEMENT	PERFORMANCE CRITERIA
1. Functional requirements are established	<ol style="list-style-type: none"> Accurate, complete and prioritised functional requirements are identified as required with reference to all media types Conflicting or overlapping requirements are identified Functional requirements are documented and validated by client Available resources and budget are identified and validated by client
2. Tools are selected	<ol style="list-style-type: none"> Relevant products and equipment are identified and evaluated with reference to functional requirements Relevant products and equipment interdependencies are identified and analysed with reference to functional requirements and system architecture Best product and equipment solution, including limitations, is identified and documented Tools are selected and purchased as required in accordance with enterprise purchasing policies
3. Tools are installed configured and tested	<ol style="list-style-type: none"> Tools are installed and configured according to vendor guidelines with reference to system architecture and customer functionality requirements System architecture and configuration is adjusted as required Tests are prepared, scheduled and executed as required Errors are tracked, interpreted and repaired as required Changes are made as required based on test results Tool configuration(s) is documented according to customer requirements Professional development implications are identified, documented and reported with reference to enterprise policies

UNIT	ICAITU205A Select and employ software and hardware multimedia tools
-------------	--

4. Tools are employed	<ol style="list-style-type: none"> 1. Education and training of users is conducted as required with reference to enterprise policies 2. Tools are employed according to vendor guidelines 3. Tools are evaluated with reference to client functional requirements
-----------------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Identification of system components

Identification of system components may require consideration of the following: current business and IT strategic plans, bandwidth, functional process descriptions, user requirements, architectures, standards, service levels, etc

In a small business not all of these documents and features will be available and therefore the current business plan, user requirements and required service levels will need to be considered.

Interactive Media Tools

There are a wide range of interactive media tools including but not limited to:

- linear and non-linear methods of editing sound and video;
- multimedia authoring tools;
- tools and programming techniques for multimedia interactivity;
- meta tag managers;
- music engines;
- CD-ROMs and DVDs;
- RAD tools;
- XCMDs and XFCNs;
- media streaming tools;
- graphic development tools;
- video development tools;
- multimedia management tools;
- 3D modelling and rendering

UNIT	
ICAITU205A Select and employ software and hardware multimedia tools	
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
Media	voice, text, video, graphics, animation
EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to chose and use the correct multimedia tools for the current and future organisational requirements
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT

ICAITU205A Select and employ software and hardware multimedia tools

Underpinning skills and knowledge

Underpinning knowledge:

- The interaction between relevant hardware and software products
- Broad general knowledge of the client business domain, for example when confirming system components to acquire, and when agreeing to methods to acquire components
- Current industry accepted hardware and software products with knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge base of vendor product directions
- function and features of animation development tools as required eg: Animator Studio and Director, Encore
- Function and features of graphic development tools as required eg:, Fireworks, Adobe, Director Shockwave Studio
- Function and features of media management tools as required eg: Media On Demand Producer, Windows Media Author, Windows Media Presenter, ASF Chop, ASF Check
- Function and features of video development tools as required eg: QuickTime, Interactor Pro, Flash
- Function and features of virtual reality technologies as required including 3D graphic simulations
- Function and features of audio development tools as required eg: MacroMedia SoundEdit, Cool Edit, RealProducer
- Knowledge of basic design principles of each media type as required
- Australian Computer Society Code Of Ethics

Underpinning skills:

- ability to analyse hardware and software tools
- ability to integrate multiple items of data and reconcile conflicting information
- ability to develop creative solutions and demonstrate resourcefulness
- ability to predict outcomes and results of selection of tools
- Ability to identify key sources of information
- Ability to understand specification sheets
- Ability to accurately summarise and document information
- Ability to see the conflicts and integration capabilities between diverse equipment
- Ability to organise and assess importance and relevance of product information
- Ability to communicate with vendors effectively

UNIT	ICAITU205A Select and employ software and hardware multimedia tools
-------------	--

Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Specifications for a range of multimedia vendor products <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence</p>
Context	<p>Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate some relevant theoretical knowledge; apply a range of well developed skills; • apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; • interpret available information, using discretion and judgement; • take responsibility for ones own outputs in work and learning; • and take limited responsibility for the output of others.

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT	ICAITU206A Check site security
-------------	---------------------------------------

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to use the features of a web browser to determine the security status of a remote server before it is accessed.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Activate own browser security features	<ol style="list-style-type: none"> 1. Built in security information and features are identified and accessed from the tool bar or pull down menu of browsers 2. Security feature on own browser that identifies a secure site by automatically opening a warning box is activated 3. Other security features, such as identifying when you are leaving a secure site by automatically opening a warning box, are also activated as necessary.
2. Identify security of website	<ol style="list-style-type: none"> 1. Website has a statement about the security tools used on the site 2. When viewing source code passwords are not seen 3. Website has a privacy statement relating to the use of personal information 4. The website states the security process/policy of credit card details
3. Determine integrity of website	<ol style="list-style-type: none"> 1. The website has statements relating to disclosures, payment policies, warranties and any additional charges 2. Details of products service and support provided 3. Policy and procedure details on cancelling, returning and refunding on services, products and support are stated 4. Copyright statements and acknowledgments are evident

UNIT	ICAITU206A Check site security
-------------	---------------------------------------

4. Identify company credentials	<ol style="list-style-type: none"> 1. The website is owned by a creditable business, with ACN, ABN and physical address details 2. Disclaimers made by the company are reasonable and lawful 3. Services, products and advertising information regarding services and products are lawful
---------------------------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Browser Software	A variety of commercially available browsers may be used. The most popular browsers are Microsoft Internet Explorer and Netscape Navigator.
Hardware	<p>Can include IT equipment of all types;</p> <ul style="list-style-type: none"> • Work stations, PCs • Networks • Remote sites, both secure and insecure • Servers
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
National Privacy Principles	Collection, Use and Disclosure, Data Quality, Data Security, Openness, Access and Correction, Identifiers, Anonymity, Transborder Data Flow, Sensitive Information,
Privacy policy	Privacy policies includes information on the types of information held, the purpose of holding the information, how it is collected, and the approved uses and disclosure of information held.

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to use the security features on the browser and website information to identify sites being visited as secure or insecure.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	
ICAITU206A	Check site security
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • Browser Use • Consumer protection issues • Copyright and intellectual property • The National Privacy Principles • The Internet Commerce Standard 1.0
Resources	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Basic Web Security • Basic computer operation <p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Personal computer • Internet access • Remote web sites • Browser <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Although simulated activities must closely reflect the workplace the candidate will quickly demonstrate competence by locating and correctly using the security features on his/her own browser and checking the website information.</p>
Context	<p>Work is likely to be carried out under direct supervision. Breadth, depth and complexity of knowledge and skills would prepare a person to perform a defined range of activities most of which may be routine and predictable.</p>

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT	ICAITU207A Apply a web authoring tool to convert client data
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to use web development software in order to create web site content. The unit is designed to use web authoring tools to convert text and images to appropriate web protocols
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Identify authoring requirements	<ol style="list-style-type: none"> 1. Preferred web authoring tool is selected according to business preferences 2. Preferences for the web authoring tool are set including site FTP 3. The web author tool environment/ workspace is navigated and customised to meet individual requirements 4. Buttons and tools are selected correctly, opened and closed to access a full range of features 5. Site is defined, clearly named and a root folder created
2. Create files	<ol style="list-style-type: none"> 1. A file is created and saved in correct location/ directory 2. Text content is inserted and formatted according to business information needs 3. Images are inserted and optimised as required 4. The need for framesets is identified and frameset created, if necessary 5. Frames are named and saved appropriately 6. Local formatting tools are used as required to create required business image
3. Create formatting templates	<ol style="list-style-type: none"> 1. A basic external Cascading Style Sheets (CSS) is created 2. Styles are defined for the required tags according the business needs 3. CSS linked to the relevant files and files display the relevant formatting

UNIT	ICAITU207A Apply a web authoring tool to convert client data
4. Define library items	<ol style="list-style-type: none"> 1. Items that recur on several pages are identified 2. Selected items are formatted according to CSS definition 3. The tags of the selected items are checked 4. Items are selected and library items created and clearly named 5. Items contained in library are updated as required by business information needs
5. Develop templates	<ol style="list-style-type: none"> 1. Create and save a file as a template and link with CSS 2. Format the template and create and name editable regions 3. Place generic image icons in page as required by business image 4. Template is saved/ modified saved
6. Create simple forms	<ol style="list-style-type: none"> 1. Form elements are added to page 2. Form element properties are set for each form element 3. Insert additional fields as required for processing form 4. Availability and location of cgi script is identified 5. The form is connected to a script in a server cgi bin 6. The form is tested to ensure no errors
7. Create simple navigation	<ol style="list-style-type: none"> 1. Links between pages are created to reflect content structure using both text and images 2. The link is check in browsers for errors 3. Multiple links are created on one image 4. The links are checked browsers 5. Website content is checked across a number of different browsers and browser versions to ensure consistency of presentation and performance

UNIT	ICAITU207A Apply a web authoring tool to convert client data
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Web development standards	<p>Web Content Accessibility Guidelines 1.0 (WCAG)</p> <p>Authoring Tool Accessibility Guidelines 1.0 (ATAG)</p> <p>User Agent Accessibility Guidelines 1.0 (UAAG)</p>
Software	<p>Variables may include but are not limited to: text editors such as</p> <ul style="list-style-type: none"> • Word pad, • Notepad; <p>Commercial software applications;</p> <ul style="list-style-type: none"> • Dreamweaver, • Golive, • Adobe Photoshop • Fireworks, • NetObjects Fusion • Frontpage
Markup Language	Limited to HTML and DHTML
Code generation	The code generation may be automated by commercial applications though the candidate will needs to be able valid the code and fix any problems
Hardware	<p>Can include IT equipment of all types;</p> <ul style="list-style-type: none"> • Work stations, PCs • Networks • Remote sites • Servers
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.

UNIT	ICAITU207A Apply a web authoring tool to convert client data
-------------	---

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to develop web content using authoring tools to meet specifications. Authoring tools are applied to create cross browser web documents. .		
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.		
Underpinning skills and knowledge	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%; padding-right: 20px;"> Underpinning knowledge: <ul style="list-style-type: none"> • Website architecture • SGML and the associated standards • Basic design principles • Technical environment characteristics • Read and interpret authoring specifications • Appropriate software and tools are selected to meet the required specifications • Australian Computer Society Code Of Ethics </td> <td style="vertical-align: top; width: 50%;"> Underpinning skills: <ul style="list-style-type: none"> • HTML • Basic design </td> </tr> </table>	Underpinning knowledge: <ul style="list-style-type: none"> • Website architecture • SGML and the associated standards • Basic design principles • Technical environment characteristics • Read and interpret authoring specifications • Appropriate software and tools are selected to meet the required specifications • Australian Computer Society Code Of Ethics 	Underpinning skills: <ul style="list-style-type: none"> • HTML • Basic design
Underpinning knowledge: <ul style="list-style-type: none"> • Website architecture • SGML and the associated standards • Basic design principles • Technical environment characteristics • Read and interpret authoring specifications • Appropriate software and tools are selected to meet the required specifications • Australian Computer Society Code Of Ethics 	Underpinning skills: <ul style="list-style-type: none"> • HTML • Basic design 		
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Site authoring software and tools • Business expectations brief <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>		
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competency.</p>		
Context	<p>Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate some relevant theoretical knowledge; apply a range of well developed skills; • apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required; • interpret available information, using discretion and judgement; • take responsibility for ones own outputs in work and learning; • and take limited responsibility for the output of others. 		

UNIT

ICAITU207A Apply a web authoring tool to convert client data**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	1	2	2	2

UNIT	ICAITU208A Use site server tools for e-business
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to use site server tools to build, host, track, monitor and transactions on an e-business site
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Task requirements are confirmed	<ol style="list-style-type: none"> 1. Relevant features and functionality of site are confirmed with client as required 2. Platform / software is confirmed with reference to client systems 3. Integration requirements of site are confirmed with client as required 4. E-commerce standards relevant to the task and site functionality are confirmed 5. Current and proposed configuration is documented as required 6. Client task requirements, performance criteria and scope of work are documented and validated by client 7. Available resources and budget are identified and validated by client
2. Tools are selected	<ol style="list-style-type: none"> 1. Relevant tools are identified with reference to client and functional requirements 2. Tools are reviewed and evaluated with reference to task requirements and required site functionality 3. Selected tools are loaded and configured according to vendor guidelines, customer requirements and server and site architecture 4. Relevant tools are utilised to achieve task requirements and equipment

UNIT	
ICAITU208A Use site server tools for e-business	
3. Tools are used	<ol style="list-style-type: none"> 1. Tools are used to maintain or up date relevant functionality 2. Work processes and procedures are co-ordinated and implemented as required 3. Tools are used according to vendor guidelines to achieve relevant features and functionality as detailed in task requirements
4. Tools and task requirements are reviewed	<ol style="list-style-type: none"> 1. Work processes and procedures are monitored, analysed and evaluated as required 2. New configuration is reviewed with reference to client task requirements and performance criteria and adjustments to configuration made as required 3. Tools are reviewed with reference to client task requirements 4. Reports and other documentation is developed and validated by client as required

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Task Requirements	The use of site server tools may applied to a range of tasks including building, database connectivity, hosting, customer tracking and profiling, payment and delivery systems, monitoring and ensuring secure transactions on an e-business site.
Servers	DNS servers, finger servers, firewalls and proxy servers, FTP servers, gopher servers, HTTP servers, mail servers, WAIS servers
Server applications	file sharing, printer sharing, messaging, web services, network and remote access, database and data warehousing, directory services, management, line of business applications, terminal services
Site analysis software	<p>A number of commercially available software products may be used depending on functionality</p> <ul style="list-style-type: none"> • WebTrends Log Analyzer • Linkbot Pro • InContext WebAnalyzer • CyberSpyder • AccessWatch • WebCounter

UNIT	
UNIT	ICAITU208A Use site server tools for e-business
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
Server Tools	Will vary depending on the features and functionality of the site and server, but may include server benchmark tools, disaster recovery tools, disk management tools, network management tools, security tools, storage and backup tools, user management tools, development tools, purchasing / payment tools, maintenance tools
EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to use site server tools to maintain expected business performance and technical standards
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT

ICAITU208A Use site server tools for e-business

Underpinning skills and knowledge

Underpinning knowledge:

- e-business site features in relation to choice of tools
- site building considerations in relation to new versus established business, B2B versus B2C etc
- e-commerce standards in relation to site features and functionality including OBI, OTP, OPS, P3P, EDIFACT
- the role of protocols in relation to features and functionality eg: HTTP, SMTP, FTP, HTTPS
- relevant tools and products in relation to site construction eg: SSJS, Java, JAP, Perl, Cold Fusion, ASP
- payment systems in relation to relevant site functionality including SET
- trafficking and profiling in relation to site maintenance and reporting eg: server logs, cookies, META tag
- relevant security measures as required by site functionality eg: SSL, encryption, authentication, VPN,
- database connectivity in relation to the use of CGI, NSAPI, WAI etc
- The function and features of tools relevant to site development as required eg: Oracle8, MS Commerce Server
- The function and features of tools relevant to log analysis as required eg: Bazaar Analyser Pro, DistSta
- The function and features of tools relevant to HTTP servers as required eg: Alibaba, Apache, Netscape Communications Server
- The function and features of tools relevant to search engines as required eg: Excite, Fulcrum Surfboard, ICE, MS Index Server
- The function and features of tools relevant to FTP servers as required eg: NTBatch, Pumpkin, WAR FTPD, Serv-u
- The function and features of tools relevant to firewalls and proxy servers as required eg: AltaVista firewall, Guardian, Netscape Proxy Server
- The function and features of tools relevant to connectivity as required eg: Web390, CyberJunction, IPRoute, IwareConnect,
- Australian Computer Society Code Of Ethics

Underpinning skills:

- Evaluating and selecting products to suit a given business profile
- The use of site server tools associated with relevant site server
- SQL

UNIT	ICAITU208A Use site server tools for e-business
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Server hardware • Server tools <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence.</p>
Context	<p>Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.</p> <p>Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.</p> <p>Applications involve responsibility for, and limited organisation of, others.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; • apply solutions to a defined range of unpredictable problems; • identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; • identify, analyse and evaluate information from a variety of sources; • take responsibility for ones own outputs in relation to specified quality standards; • and take limited responsibility for the quantity and quality of the output of others.

UNIT

ICAITU208A Use site server tools for e-business**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT	ICAITU211A Operate accounting applications
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to operate common accounting software packages in order to maintain enterprise financial records
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Software is customised and enterprise data created	<ol style="list-style-type: none"> 1. Software is loaded, registered and configured according to operating instructions and enterprise requirements as needed 2. Chart of accounts is established according to operating instructions and enterprise requirements 3. Data on customers and sales is created according to operating instructions and enterprise requirements 4. Data on suppliers and purchases is created according to operating instructions and enterprise requirements 5. Payroll details are created according to operating instructions and enterprise requirements 6. Inventory details are created according to operating instructions and enterprise requirements 7. Tax codes are established according to operating instructions and enterprise requirements

UNIT	ICAITU211A Operate accounting applications	
2. Transactions are recorded and tracked as required	1. Invoices are generated and tracked according to operating instructions and enterprise requirements	2. Customer payments and deposits are recorded and tracked according to operating instructions and enterprise requirements
	3. Purchases are recorded and tracked according to operating instructions and enterprise requirements	4. Wages, allowances and superannuation is paid according to operating instructions and enterprise requirements
	5. Enterprise data, forms and templates are updated according to operating instructions and enterprise requirements	6. Backups are made according to operating instructions and enterprise requirements
3. Reports are generated as required	1. Accounts are reconciled according to operating instructions and enterprise requirements	2. Reports are generated according to operating instructions and enterprise requirements

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Enterprise Requirements and Enterprise Data	Can vary depending on size, type and complexity of business, number of employees, sources of income, the nature of sales, tax obligations, support provided by accounting professionals etc,
Hardware	variables may include but are not limited to personal computers and networked systems
Document	variables may include but are not limited to: established files and new documents
Software	variables may include but are not limited to: commercial software applications; organisational specific software; word processing
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards
Purchases	Can relate to cheques, EFTPOS, cash, credit cards, credit notes etc
Reports	Will vary according to enterprise requirements and the extent of support provided by accounting professionals, but might include Profit and Loss Statements, Balance Sheets, Charts of Accounts Summary, Business Activity Statements etc

UNIT	ICAITU211A Operate accounting applications
-------------	---

EVIDENCE GUIDE

Critical aspects of evidence	The ability to operate accounting applications in order to create and maintain enterprise financial records that meet business and legislative requirements	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • The features and functions of common accounting software such as MYOB, Quicken, Phoenix etc • A sound understanding of basic accounting principals such as assets, liabilities, equity, income, cost of sales, expenses, debtors, creditors, • A sound understanding of basic accounting devices including accounts, sales journals, purchases, invoices, transaction journals, general ledger, chequebook register etc • The features and functions of common accounting reports including Profit and Loss, Balance Sheet, Chart of Accounts Summary, Business Activity Statements • A sound understanding of current legislative requirements relating to enterprise requirements including superannuation, income tax rates, Goods & Services tax, Pay as You Go etc. 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • The ability operate a PC and relevant peripherals • The use of mathematical ideas and techniques related to recording and analysing basic financial data
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, projects and questioning on underpinning knowledge and skills.</p> <p>To demonstrate competence in this unit the candidate will need access to:</p> <ul style="list-style-type: none"> • Current commercial accounting applications and a PC with appropriate specifications to run the software. <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate the range of skills related to the scope of enterprise operations and functions that relate to the accounting package.</p>	

UNIT

ICAITU211A Operate accounting applications**Context**

Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.

This competency can be assessed in the workplace or in a simulated environment

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITU213A Conduct online transactions
-------------	---

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to bank, buy or carry out any other basic consumer transaction online
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Determine how to undertake transaction	<ol style="list-style-type: none"> 1. Website displays the projects, services or other required by the e-consumer 2. Website contains information indicating the trustworthiness of the organisation responsible for the website 3. The terms of agreement/ service of product, service or other are acceptable to the e-consumer
2. Undertake online transaction	<ol style="list-style-type: none"> 1. Required information is entered correctly in the relevant fields 2. All popup dialogue boxes, prompts or feedback mechanisms are understood 3. All preferred options such as freight, currency for payment are checked 4. Revisions are made as necessary by moving back to various points in the process
3. Complete online transaction	<ol style="list-style-type: none"> 1. All correctly completed information is send to the website 2. Receipts of transaction are recorded and archived according to e-consumer and business requirements 3. Transaction process is correctly closed down and site left when required

UNIT	ICAITU213A Conduct online transactions
------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.
Trustworthiness	Trustworthiness can be more readily ascertained if the company/organisation has information about the physical location of the organisation, identification information is available, privacy, security and liability statements, licenses or required qualifications/ memberships, payment options, statements on all charges including product/service cost, shipping and handling charges and taxes etc.
Business requirements	For example; some companies will require proof of purchase for freight insurance purposes
Hardware	variables may include but are not limited to personal computers and networked systems
Keyboarding	Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to commence and successfully complete an online transaction
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITU213A Conduct online transactions
-------------	---

Underpinning skills and knowledge

Underpinning knowledge:

- General OH&S principles and responsibilities
- Makeup and structure of web addresses
- Basic technical terminology in relation to reading help files and prompts
- Logging procedures relating to accessing a PC
- Evaluating and assessing the authority of information
- Organisational guidelines on internet and email usage, web etiquette
- Security, viruses
- Copyright and intellectual property
- The National Privacy Principles
- Different types of search engines (meta etc)
- The different types of messages that occur (error messages, updates, plug ins etc)
- Types of software
- The Internet Commerce Standard 1.0

Underpinning skills:

- Basic analysis in relation to a limited range of routine areas
- Low level decision making in relation to a limited range of routine areas
- Problem solving skills in known areas during normal routine
- Reading and writing at a level where basic online documents are understood
- Communication is clear and precise
- Interpretation of user prompts

Resources

This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills

To demonstrate competence in this unit the candidate will need access to:

- Internet connection
- E-business website

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence

UNIT

ICAITU213A Conduct online transactions**Context**

Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.

This competency can be assessed in the workplace or in a simulated environment

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	1	1	2	2	1

UNIT	ICAITU215A Use personal productivity tool
-------------	--

FIELD	Use
--------------	------------

DESCRIPTION	This unit defines the competency required to use the features and components of a personal productivity tool
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Use calendar features	<ol style="list-style-type: none"> 1. Navigate within the calendar and schedule events and appointments including repeat events recording all relevant information 2. Set alarms/reminders and if necessary, customise the required alarm/ reminder features 3. Customise the calendar views and where necessary any menus and or task bars and work within different views 4. Delete events and appoints as required 5. The calendars print options are customised and calendar is printed according to format requirements
2. Use contact management	<ol style="list-style-type: none"> 1. Create edit and delete contacts as required, recording all relevant information in the correct fields 2. Contact information is used for e-mail purposes in line with organisational policies in relation to privacy or individual requirements 3. Contacts are grouped into categories that are consistent and meaningful to the organisation or individual 4. Additional features where required such as linking activities and contacts are undertaken
3. Use additional features	<ol style="list-style-type: none"> 1. Additional features such as expense sheets, search facilities, notes and/ or email are used if available 2. Where possible the additional features are integrated with other applications 3. Where possible the additional features are integrated with other components (such as the calendar or contacts) of the personal productivity tool

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Personal Digital Assistant	PalmPilots, WorkPad PC Companion, Casio Cassiopeia, Compaq Companion Web Site, HP Jornada 720, iPAQ H3650 Color Pocket PC, handheld PCs running Microsoft Windows CE operating system, Psions and their relatives-PDA are rapidly evolving and therefore this group of variables are only indicative
Operating Systems	Command line and Graphical User Interface

UNIT	ICAITU215A Use personal productivity tool
-------------	--

Hardware	<p>May include:</p> <ul style="list-style-type: none"> • Handheld personal productivity tools • Wireless Laptops • Workstations • Mobile phones
Keyboarding	<p>Speed will vary according to different organisational, personal and hardware requirements. Some devices will be voice activated. The keyboard technique will be in line with OHS requirements for safe use of keyboards</p>
E-commerce models	<p>Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models</p>
E-Business	<p>Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts</p>
Knowledge Economy	<p>Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.</p>
OH and S Standards	<p>As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency</p>

EVIDENCE GUIDE

Critical aspects of evidence	<p>Assessment must confirm the ability to fully use the components and features of a particular personal productivity tool</p>	
Interdependent assessment of units	<p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.</p>	
Underpinning skills and knowledge	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> • General OH&S principles and responsibilities • Makeup and structure of web addresses • Basic technical terminology in relation to reading help files and prompts • Logging procedures relating to accessing a PC • Evaluating and assessing the authority of information • Organisational guidelines on internet and email usage, web etiquette • Security, viruses, privacy legislation, copyright 	<p>Underpinning skills:</p> <ul style="list-style-type: none"> • Basic data entry skills • Basic analysis in relation to a limited range of routine areas • Low level decision making in relation to a limited range of routine areas • Problem solving skills in known areas during normal routine • Reading and writing at a level where basic workplace documents are understood • Communication is clear and precise • Interpretation of user manuals

UNIT	ICAITU215A Use personal productivity tool
-------------	--

Resources	Competency can be demonstrated in a simulated environment. Peers and supervisors for obtaining information on the extent and quality of the contribution made. Assessment will require access to a personal digital assistant.
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.. This competency can be assessed in the workplace or in a simulated environment

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	Nil	1	1

9. Teamwork

ICAITTW001B	Work effectively in an Information Technology environment	9-2
ICAITTW002B	Communicate in the workplace.....	9-5
ICAITTW011B	Participate in a team and individually to achieve organisation goals.....	9-8
ICAITTW026B	Coordinate and maintain teams.....	9-11
ICAITTW027B	Relate to clients on a business level.....	9-15
ICAITTW214A	Maintain ethical conduct.....	9-19

UNIT	ICAITW001B Work effectively in an Information Technology environment
-------------	---

FIELD	Teamwork
--------------	-----------------

DESCRIPTION	This unit defines the competency required to assimilate into the Information Technology department. This is fundamental for working in an organisation.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, teamwork is relevant to all functional areas.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Comply with general IT policies and procedures	1. Role of key players of the Information Technology organisation is determined and briefly explained 2. Career choices and options are determined 3. Policies and procedures are complied with, as directed by supervisor
2. Promote the organisation and the IT department in a manner consistent with the organisational mission	1. Role of the Information Technology functions within the organisation is briefly explained 2. Organisation is promoted in a positive way
3. Identify Information Technology equipment/ software and operating system supported by the organisation	1. Information Technology equipment/ software and operating system supported by the organisation are identified 2. Equipment, location and service requirements are identified according to organisational requirements

RANGE OF VARIABLES	
VARIABLE	SCOPE
Key players	May include but are not limited to; Information Technology organisations, vendors of IT products and services, IT professional bodies, industry publications and Government Departments involved in IT industry promotion, employer organisations, relevant unions
Clients	Variables may include but are not limited to; internal and external customers; employers and employees
Organisational	Variables may include but are not limited to; EEO, Anti-discrimination, Occupational Health and Safety policies; Occupational Health and Safety procedures, ethical work practices
Information Technology department	The structure of the Information Technology department, may be a separate branch, department, division or an integrated function of an organisation
Organisational	Size and type of organisation and organisational values and culture may vary

UNIT	ICAITTW001B Work effectively in an Information Technology environment
-------------	--

Information Technology components	Can include hardware, software and communications packages
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to assimilate into the Information Technology department by demonstrating organisational values through the organisational code of conduct in work place interactions	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Basic principles of ethical practice when promoting the organisation in a manner consistent with the organisational mission • Basic principles of EEO and anti-discrimination to ensure consistency with the organisational mission • Broad knowledge of organisational code of conduct and values that are consistent with the organisational mission • Basic understanding of organisational systems • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • Broad knowledge base of vendor product directions 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Reading and writing at a level where general workplace documents can be written and understood. • Verbal communication is clear and precise, for example when explaining the role of key players in the Information Technology organisation. • Problem solving is limited to basic known problems within normal routines, for example, when complying with policies and procedures as directed by supervisor. • Basic analysis skills in relation to normal routine work processes for example, when complying with policies and procedures as directed by supervisor. • Using the features of applications for example, when complying with policies and procedures as directed by supervisor. • Basic skills in interpreting technical information, for example, when complying with policies and procedures as directed by supervisor.
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of context	

UNIT	ICAITTW001B Work effectively in an Information Technology environment
-------------	--

Context | Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.

This competency can be assessed in the workplace or in a simulated environment.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICAITTW002B Communicate in the workplace
-------------	---

FIELD	Teamwork
--------------	-----------------

DESCRIPTION	This unit defines the competency required to promote professional client support through verbal and non-verbal communication
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, teamwork is relevant to all functional areas. The unit is equivalent to MEM1.1FA & WRRC5.1A
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Establish contact with clients	<ol style="list-style-type: none"> 1. Client requests and inquiries are received in a polite and courteous manner 2. An effective service environment is created through verbal and non-verbal communication 3. Questioning and active listening are used to determine client support needs
2. Process information	<ol style="list-style-type: none"> 1. Inquiries are answered promptly 2. Requests are referred to appropriate personnel 3. Messages or information are recorded and passed on appropriately 4. Clients are informed of the process and progress of action 5. Follow-up action is taken according to organisational policy if required

RANGE OF VARIABLES	
VARIABLE	SCOPE
Organisational	Variables may include but are not limited to; policies and procedures relating to answering client support inquiries; telephone, written messages and on-line other organisational policies; job descriptions/responsibilities; organisational code of conduct; service standards; tracking processes
Communication	Variables may include but are not limited to; external clients and internal clients including team members, supervisors and management; inquiries relate to routine client support needs; clarifying and recording information and does not involve technical problem solving
Internal communication	Can include memos, electronic mail and bulletin boards
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

UNIT

ICAITW002B Communicate in the workplace

Organisational Standards

May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to adhere to organisational policies in regard to external and internal client contact and the processing of internal and external requests are followed

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

Underpinning skills and knowledge

- | | |
|--|--|
| <ul style="list-style-type: none"> • Underpinning knowledge • Basic understanding of organisational systems, for example when processing information and establishing contact with clients. • Broad knowledge of organisational values, for example, when establishing contact with clients. • Broad knowledge of organisational code of conduct, for example, when establishing contact with clients. • General OH&S principles and responsibilities • Broad knowledge base of vendor applications and their features, for example, when processing information. | <ul style="list-style-type: none"> • Underpinning skills • Questioning and active listening techniques, for example when obtaining information and determining client support needs. • Problem solving skills for a defined range of predictable problems, for example when responding to client requests and inquiries. • Basic negotiation skills in relation to other team members applied to a defined range of predictable problems, for example, when creating an effective service environment. • Basic customer service skills in relation to obtaining in information, for example when responding to client requests and inquiries. • Conveying meaning clearly, concisely and coherently, for example when responding to client requests and inquiries. • Non-verbal communication is clear and precise, for example, when creating an effective service environment. • Literacy skills in regard to basic workplace documents |
|--|--|

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Work is to be carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.

This competency can be assessed in the workplace or in a simulated environment.

UNIT

ICAITW002B Communicate in the workplace

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	2	1	1	1	1	1

UNIT	ICAITW011B Participate in a team and individually to achieve organisation goals
-------------	--

FIELD	Teamwork
--------------	-----------------

DESCRIPTION	This unit expresses competency required to work individually and with others in an organisation
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, teamwork is relevant to all functional areas. The unit is equivalent to MEM2.3C11A and combined units BSATEM101A & BSAORG201A
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Establish own work schedule	1. Work to be completed is identified 2. Work is prioritised according to organisation guidelines 3. Urgent requests are prioritised and acted on according to organisational guidelines
2. Participate in team structure	1. Members and roles of team are identified 2. Tasks and goals are identified and acted on 3. Assistance is sought from team members when necessary 4. Feedback is given and received to ensure organisation goals are met

RANGE OF VARIABLES	
VARIABLE	SCOPE
Team members	Variables may include but are not limited to: peers, supervisors and other members of the organisation; people from a range of social, cultural or ethnic backgrounds; autonomy and responsibility of the team; responsibility of team members; life of the team
Organisation	Variables may include but are not limited to: organisational charts and work-flow guides; time line for tasks and goals; critical ratings policy
Tools and resources	For time management such as, diaries, personal organisers
Leadership	Leadership styles of team leader
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency

UNIT	ICAITTW011B Participate in a team and individually to achieve organisation goals
-------------	---

Organisational Standards

May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence

Assessment must confirm the ability to participate in a team or act individually to meet organisation requirements and be able to respond to requests and prioritise work schedule to meet organisational guidelines

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

Underpinning skills and knowledge

Underpinning knowledge

- Principles of ethical work practice for example, when participating in teams.
- Roles and responsibilities of individual team members.
- General understanding of social and organisational systems when participating in teams.
- Results orientated approaches, for example when establishing one’s own work schedule.
- Organisational structure and Information Technology division structure so as to inform own and teamwork practices.
- General organisational strategic direction and values so as to inform own and teamwork practices.
- General work team processes and group dynamics for example, when participating in teams.

Underpinning skills

- Decision making between a limited range of options, for example, when prioritising work according to organisation guidelines
- Assertiveness, for example, when identifying team roles.
- Questioning and active listening are employed, for example, when giving and receiving feedback.
- General customer service, for example, when processing urgent tasks according to organisational guidelines.
- Time management for self management purposes, for example, when prioritising work according to organisation guidelines
- Basic planning skills.
- Problem solving techniques for known problems in routine processes, for example, when identifying and acting on tasks and goals.
- Literacy skills in relation to general workplace documentation.

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Work is carried out under routine supervision. An individual demonstrating this Unit would be able to: demonstrate basic operational knowledge in a moderate range of areas; apply a defined range of skills; apply known solutions to a limited range of predictable problems; perform a range of tasks where choice between a limited range of options is required; assess and record information from varied sources; and take limited responsibility for one’s own outputs in work and learning.

This competency can be assessed in the workplace or in a simulated environment.

UNIT	ICAITTW011B Participate in a team and individually to achieve organisation goals
-------------	---

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	2	1	1	1

UNIT	ICAITTW026B Coordinate and maintain teams
-------------	--

FIELD	Teamwork
--------------	-----------------

DESCRIPTION	This unit expresses competency required to establish and improve teams and teamwork in an IT environment
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, teamwork is relevant to all functional areas. The unit is equivalent to WRRER.2A & BSATEM401A
---	--

ELEMENT	PERFORMANCE CRITERIA
1. Establish, develop and improve teams	<ol style="list-style-type: none"> 1. Clear, accurate and relevant team objectives are developed including expected performance standards 2. Objectives are designed to reflect organisational culture and performance standards 3. Objectives are regularly reviewed against service provision 4. A collaborative approach is adopted with team members 5. Team members' input is recognised
2. Coordinate team	<ol style="list-style-type: none"> 1. Work to be completed is determined 2. Team tasks are clarified, planned and allocated in consultation with team members to ensure effective team operation and efficient use of human resources 3. Team is motivated to achieve high standard of client support 4. Team is provided with feedback in regard to achievement/non-achievement of agreed performance/service standards 5. Team members are encouraged to contribute feedback in regard to achievement of performance/service standards
3. Delegate responsibility and authority	<ol style="list-style-type: none"> 1. Team and individual responsibilities and limits of responsibility, are clearly defined in line with organisational procedures 2. Delegation of responsibilities is clearly communicated, and effectively carried out. 3. Policies, plans, problems and solutions are communicated clearly and concisely to team

UNIT	ICAITTW026B Co-ordinate and maintain teams
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE
Team member	Variables may include but are not limited to: peers, supervisors and other members of the organisation; people from a range of social, cultural or ethnic backgrounds; dynamics of team; autonomy and responsibility of the team; responsibility of team members; degree of delegation authorised; life of the team; size and diversity of team; skills in English language, literacy and numeracy skills may vary; leadership style of team leader; communication style of team members
Organisation	Variables may include but are not limited to: organisational charts and work-flow guides; strategic direction and values; performance standards, particularly service standards Nature of assigned brief
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to coordinate and maintain teams to meet organisation requirements and to coordinate teams to meet requests and prioritise work schedule to meet organisational guidelines
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITTW026B Co-ordinate and maintain teams
-------------	---

Underpinning skills and knowledge

Underpinning knowledge

- Principles of EEO and anti-discrimination, for example, when establishing, developing and improving teams.
- Detailed knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations.
- A broad knowledge base incorporating some theoretical concepts of three or more current industry systems development methodologies
- Current business practices in relation to preparing reports, for example, when establishing, developing and improving teams.
- Components of the business planning process relevant to the development of IT business solutions, for example, when delegating responsibility and authority.
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities.
- Broad knowledge base of vendor product directions.
- Broad general knowledge of the client business domain, for example, when establishing, developing and improving teams.
- Broad knowledge base of quality assurance practices, for example, when coordinating a team.
- A basic knowledge of information gathering techniques
- Broad general knowledge of change management systems, for example, when establishing, developing and improving teams.

Underpinning skills

- Leadership skills in relation to guidance for achieving outcomes, transferring and collecting information and gaining consensus on concepts.
- Project planning skills in relation to scope, time, cost, quality and communications, for example, when clarifying and planning team tasks to ensure effective team operation and efficient use of human resources.
- Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures.
- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives, for example, when delegating responsibility and authority.
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example, when communicating policies, plans, problems and solutions to the team.
- Teamwork skills which involve the contribution to solutions and goals of a non-routine or contingency nature.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts.
- ICAITTW011B

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Work is conducted without supervision if routine, under minimal supervision if non-routine. An individual demonstrating these competencies would be able to: demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; apply solutions to a defined range of unpredictable problems; determine and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; determine, analyse and evaluate information from a variety of sources; take responsibility for one’s own output in relation to specified quality standards; and take limited responsibility for the quantity and quality of the output of others.

This competency can be assessed in the workplace or in a simulated environment.

UNIT	ICAITTW026B Co-ordinate and maintain teams
------	---

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITTW027B Relate to clients on a business level
-------------	--

FIELD	Teamwork
--------------	-----------------

DESCRIPTION	This unit defines the competency required to formulate and implement small service level agreements
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, teamwork is relevant to all functional areas.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Build and maintain business networks and relationships	<ol style="list-style-type: none"> 1. Organisational standards and values are used in conducting business 2. Networks are used to determine and build business relationships 3. Organisational culture and service standards are used to develop and maintain positive business relationships
2. Plan to meet internal and external client requirements	<ol style="list-style-type: none"> 1. Clients' needs are carefully researched, so they can be correctly met. 2. Plans to achieve the quality, time and cost specifications agreed with clients are developed 3. Information on costs and resource allocation is accurately assessed and interpreted
3. Negotiate client support service costs	<ol style="list-style-type: none"> 1. Cost negotiations are conducted within a designated time frame and in a manner likely to promote good business relationships 2. Clarification is sought promptly, where areas of uncertainty or disagreement occur 3. Proposed client support service is presented in a clear, concise and comprehensive manner to client 4. Client is in agreement with support service time frame and cost, or is referred to appropriate person for further negotiations
4. Monitor, adjust and implement procedures to maintain client focus	<ol style="list-style-type: none"> 1. Organisational systems and procedures are used to monitor progress in achieving client support service targets 2. Client feedback is sought and used to improve the provision of client support services 3. Adjustments to client support service are made based on feedback and in line with organisational policy

UNIT	ICAITW027B Relate to clients on a business level
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE
Organisation	Variables may include but are not limited to: client service standards; client liaison policy; service level agreement policy; ethical work practices policies and procedures; supplier list
Clients	Variables may include but are not limited to: internal and external; new, ongoing and/or future clients; people from a range of social, cultural or ethnic backgrounds; seniority of clients; communication styles of clients Degree of delegated authority
Tools to	Document and present proposal, track and monitor service standards
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability through the formulation and implementation of small service level agreements to encourage clients to engage in further business. Assessment must confirm the ability to successfully negotiate client support service provision and satisfy client requirements for client support service within quality, time and cost parameters
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT		ICAITW027B Relate to clients on a business level
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • Some theoretical concepts relating to negotiation and business relationships, for example, when building and maintaining business networks and relationships. • Current business practices in relation to preparing reports, for example, when monitoring, adjusting and implementing procedures to maintain client focus. • Components of the client's business planning process relevant to the development of IT business solutions. • Current industry accepted hardware and software products with broad knowledge of general features and capabilities. • Broad knowledge base of vendor product directions, for example, when planning to meet internal and external client requirements. • Broad general knowledge of the client business domain, for example, when monitoring, adjusting and implementing procedures to maintain client focus. • Broad knowledge base of quality assurance practices, for example, when monitoring, adjusting and implementing procedures. • A basic knowledge of information gathering techniques, for example, when building and maintaining business networks and relationships. • Broad general knowledge of change management systems, for example, when monitoring, adjusting and implementing procedures to maintain client focus. • Broad general knowledge of organisational policies on contracting, for example, when negotiating client support service costs. • Organisational policies on external client relationships. 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Applying customer service skills in a range of contexts at various levels. • Problem solving for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example, when adjusting client support services based on feedback and in line with organisational policies. • Facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when determining and building business relationships. • Plain English, literacy and communication skills in relation to analysis, evaluation and presentation of information to clients. • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature. • Negotiation skills in relation to others applied to an undefined range of predictable problems • ICAITS009B
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.	
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts	
Context	<p>Work is conducted without supervision if routine, under minimal supervision if non-routine. An individual demonstrating these competencies would be able to: demonstrate understanding of a broad knowledge base incorporating some theoretical concepts; apply solutions to a defined range of unpredictable problems; determine and apply skill and knowledge areas to a wide variety of contexts with depth in some areas; determine, analyse and evaluate information from a variety of sources; take responsibility for one's own output in relation to specified quality standards; and take limited responsibility for the quantity and quality of the output of others.</p> <p>This competency can be assessed in the workplace or in a simulated environment.</p>	

UNIT	ICAITTW027B Relate to clients on a business level
------	--

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITTW214A Maintain ethical conduct
-------------	---

FIELD	Team Work
--------------	------------------

DESCRIPTION	This unit defines the competency required to maintain professional and ethical conduct when dealing with colleagues, clients and employers. This unit of competence is based on the Australian Computer Society's Code of Ethics but does not in any way replace the ACS Code of Ethics, which covers a number of additional Australian Computer Society requirements.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Protect the interests of clients	<ol style="list-style-type: none"> 1. Ensure continuity of computing services and information flow as expected of job role 2. Ensure the integrity and security of others' information as required by privacy legislation and company policy 3. Potential conflicts of interest are identified and articulated as quickly as possible to the relevant parties 4. Client interests including confidentiality and proprietary rights are maintained
2. Produce quality products and services	<ol style="list-style-type: none"> 1. Provide products and services which match the operational and financial needs of clients and employers 2. Ensure value for money in services and products produced for clients and employers 3. Maintain and work to industry and international standards 4. Implement quality processes when developing products and maintaining service 5. Products produced for clients and employers are the best possible fit to their needs
3. Ensure correct representation	<ol style="list-style-type: none"> 1. Professional skills, knowledge and qualifications are correctly presented 2. Services and products developed by self and others are correctly acknowledged 3. Information provided to employers and clients is unbiased and professionally qualified 4. Estimates for work are as realistic as possible considering the stages of work, budget constraints and ability to influence project stages

UNIT	
ICAITW214A Maintain ethical conduct	
4. Maintain good work practices	<ol style="list-style-type: none"> 1. Work practices protect and promote the health and safety of self and others 2. Colleagues and employees are treated equitably and professionally 3. Colleagues, clients and employees are not mislead regarding the suitability of services or products 4. Professional opinion is qualified based on expertise or knowledge limitations 5. Professional skills and knowledge are continually up dated and up graded

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

<p>Legislation, codes and national standards may include:</p>	<ul style="list-style-type: none"> ▪ Occupational Health and Safety ▪ Industry codes of practice, such as the Australian Computer Society Code of Ethics ▪ OECD International Guidelines for Consumer Protection in E-Commerce ▪ Access and equity ▪ Copyright laws ▪ Defamation laws ▪ Privacy legislation ▪ Intellectual property, confidentiality requirements ▪ Legal and regulatory policies affecting e-business
<p>Guidelines may include:</p>	<ul style="list-style-type: none"> ▪ Legal, ethical and security issues ▪ Pre-requisites for membership ▪ Conflict of interest Guidelines ▪ Customer Service Guidelines
<p>Professional development may include:</p>	<ul style="list-style-type: none"> ▪ Seminars ▪ Courses ▪ Professional membership requirements ▪ Industry updates

UNIT	ICAITW214A Maintain ethical conduct
-------------	--

E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability of the candidate to conduct their work practices in an ethical and professional manner	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.	
Underpinning skills and knowledge	Underpinning knowledge: <ul style="list-style-type: none"> • Australian Computer Society Code Of Ethics • Organisational requirements on customer service • OHS legislation • Copyright and intellectual property • National Privacy Principle Guidelines (to be published in October 2001) • The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000. • The National Privacy Principles • Access and equity legislation 	Underpinning skills: <ul style="list-style-type: none"> • Professional development skills in relation to identifying personal skills requiring skill up grading and up dating • Researching and identifying relevant courses, seminars or industry information
Resources	<p>This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills</p> <p>Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.</p>	

UNIT

ICAITW214A Maintain ethical conduct

Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p> <p>Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence</p>
Context	<p>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 co-ordination.</p> <p>The 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.</p> <p>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 co-ordination may be involved.</p> <p>An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> • 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; • and take limited responsibility for the achievement of group outcomes.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	2	3	2

10. Documentation

ICAITD003B	Receive and process oral and written communication.....	10-2
ICAITD128A	Create user and technical documentation.....	10-4
ICAITD209A	Writing for the world wide web	10-7
ICAITD210A	Prepare technical documentation	10-11

UNIT	ICAITD003B Receive and process oral and written communication
-------------	--

FIELD	Documentation
--------------	----------------------

DESCRIPTION	This unit defines the competency required to clarify and document client information and refer for action
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, documentation is relevant to all functional areas. The unit is equivalent to competency units BSACOM201A & BSACOM202A.
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Receive and process oral communication	<ol style="list-style-type: none"> 1. Oral messages are received, clarified and acted on promptly 2. Messages are relayed to nominated person 3. Oral communication is recorded according to organisational guidelines
2. Receive and process written communication	<ol style="list-style-type: none"> 1. Written communication is received and acted on according to organisation's guidelines 2. Written communication is recorded according to organisational guidelines
3. Respond to incoming telephone calls	<ol style="list-style-type: none"> 1. Calls are answered promptly in accordance with organisational requirements 2. Caller's requests are determined and established 3. Messages are recorded in line with organisational guidelines
4. Make telephone calls	<ol style="list-style-type: none"> 1. Caller is correctly determined and greeted 2. Message is received and confirmed with caller 3. Message is delivered and call recorded

RANGE OF VARIABLES	
VARIABLE	SCOPE
Organisational	Variables may include but are not limited to: guidelines include telephone documentation procedures, written documentation procedures, and organisation manuals and policy on client liaison.
Communication	Variables may include but are not limited to: written communication can involve both hand written and printed material, internal memos, electronic mail, briefing notes, general correspondence, journal articles and marketing materials; oral communication can include answering telephone calls, requests from supervisor and informal discussion; the complexity of oral and written communications may vary
Equipment	Variables may include but are not limited to: networked systems, communications equipment, phone, email; keyboard equipment may include mouse, touch pad, keyboard, pens; Information Technology components, which can include hardware, software and communications packages

UNIT	ICAITD003B Receive and process oral and written communication
-------------	--

Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to use clear and concise communication to record and process messages according to organisational requirements; clarify and document client information and refer to correct area of responsibility for action				
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.				
Underpinning skills and knowledge	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Underpinning knowledge</td> <td style="width: 50%; padding: 5px;">Underpinning skills</td> </tr> <tr> <td style="padding: 5px;"> <ul style="list-style-type: none"> Basic principles of ethical work practices Basic principles and legislation of EEO and Anti-discrimination Basic understanding of systems, organisational </td> <td style="padding: 5px;"> <ul style="list-style-type: none"> Basic customer service in relation to obtaining information Problem solving skills for a defined range of predictable problems Negotiation skills in relation to other team members and applied to a defined range of predictable problems Low level decision making skills Convey meaning clearly, concisely and coherently Literacy skills in regard to basic workplace documentation Plain English literacy and communication skills in relation to dealing with clients and team members </td> </tr> </table>	Underpinning knowledge	Underpinning skills	<ul style="list-style-type: none"> Basic principles of ethical work practices Basic principles and legislation of EEO and Anti-discrimination Basic understanding of systems, organisational 	<ul style="list-style-type: none"> Basic customer service in relation to obtaining information Problem solving skills for a defined range of predictable problems Negotiation skills in relation to other team members and applied to a defined range of predictable problems Low level decision making skills Convey meaning clearly, concisely and coherently Literacy skills in regard to basic workplace documentation Plain English literacy and communication skills in relation to dealing with clients and team members
Underpinning knowledge	Underpinning skills				
<ul style="list-style-type: none"> Basic principles of ethical work practices Basic principles and legislation of EEO and Anti-discrimination Basic understanding of systems, organisational 	<ul style="list-style-type: none"> Basic customer service in relation to obtaining information Problem solving skills for a defined range of predictable problems Negotiation skills in relation to other team members and applied to a defined range of predictable problems Low level decision making skills Convey meaning clearly, concisely and coherently Literacy skills in regard to basic workplace documentation Plain English literacy and communication skills in relation to dealing with clients and team members 				
Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made.				
Consistency	Competency is to be assessed through practical demonstration or performance. Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts				
Context	<p>Work is carried out under direct supervision. An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.</p> <p>This competency can be assessed in the workplace or in a simulated environment.</p>				

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
1	1	1	1	1	1	1

UNIT	ICAITD128A Create user and technical documentation
-------------	---

FIELD	Documentation
--------------	----------------------

DESCRIPTION	Define and document reference material to use, support and maintain system
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, documentation is relevant to all functional areas.
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine documentation standards and requirements	<ol style="list-style-type: none"> 1. Standards for documentation are determined from overall project documentation standards and industry standards 2. Documentation types and design templates are identified and agreed with higher authorities 3. Authors are informed of the standards and any technical resources/materials/manuals to support documentation
2. Produce technical software documentation	<ol style="list-style-type: none"> 1. Technical documentation is recorded in line with project documentation standards 2. All supporting technical information such as the architecture and detailed project plan are clearly and accurately referenced 3. Modification and maintenance requirements are clearly documented to documentation standards 4. Documentation is understandable to programmers as a stand alone document
3. Create client user documentation	<ol style="list-style-type: none"> 1. Developed software's operational procedures are clearly and coherently documented in non-technical jargon 2. Documentation is aligned with client requirements to support ease of use 3. Documentation is written in clear, coherent and concise plain English and logically sequenced and cross referenced
4. Obtain endorsement/sign-off	<ol style="list-style-type: none"> 1. Developed documentation is reviewed by target audience 2. Changes are made according to target audience feedback 3. Documentation is submitted for higher authority sign off

UNIT	ICAITD128A Create user and technical documentation
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE
Documentation standards	<p>Can include, but are not restricted to policy relating to sign-off, storage, distribution, revision</p> <p>Standards can include ISO/AS standards, organisational standards, project standards</p> <p>Can include: tools for documenting eg. word processing packages, desktop publishing packages.</p>
Types of documentation	Can include, but are not restricted to: technical manuals, user manuals, policy and procedure manuals, training materials in either hard copy, electronic copy, on-line help, Internet/intranet.
Templates	Style of templates will vary according to type of documentation and tools used to undertake documentation
Client User	May be a department within the organisation or a third party and so the relation and ease of access will vary.
Development methods/tools	Will vary from the traditional Systems Development life cycle with little or no formalisation to a very well structured CASE tool.
Documentation and Reporting	Audit trails, naming standards, version control
OH and S Standards	As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency
Organisational Standards	May be based upon formal, well documented methodologies or non-existent. For training delivery purposes best practice examples from industry will be used

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to clearly and coherently document client and technical information in a manner which is accepted by the target audience as applicable and useable
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT

ICAITD128A Create user and technical documentation

Underpinning skills and knowledge

Underpinning knowledge

- Current business practices in relation to preparing reports
- Detailed knowledge of documentation practices and standards
- Broad knowledge base of quality assurance practices
- Broad general knowledge of the client business domain
- General OH&S principles and responsibilities
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities
- Broad knowledge base of vendor product directions

Underpinning skills

- Problem solving skills for a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Technical writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Comprehension skills relevant to technical materials

Resources

Project specific resources and documentation. Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

This competency can be assessed in the workplace or in a simulated environment. This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills.

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	ICAITD209A Writing for the world wide web
-------------	--

FIELD	Documentation
--------------	----------------------

DESCRIPTION	This unit defines the competency required to write concise and relevant content for web pages
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
---	---

ELEMENT	PERFORMANCE CRITERIA
1. Site content requirements are determined	<ol style="list-style-type: none"> 1. Site purpose and functionality is confirmed with reference to client specification 2. Customer information needs are identified with reference to audience, site functionality and client requirements 3. Content channels and format requirements are identified as required 4. Templates and style guides are identified where relevant 5. Relevant content is identified and analysed with reference to audience needs, maintenance requirements, information architecture and site design and functionality 6. Alterations to site design are negotiated as required by identified content requirements
2. Site content is written	<ol style="list-style-type: none"> 1. Content is generated in accordance with requirements 2. Content is able to be scanned and information readily digestible 3. Content is edited with reference to audience needs, site functionality and client requirements
3. Upload content	<ol style="list-style-type: none"> 1. Log into server site using either administrative or anonymous FTP protocol 2. Transfer software is launched and destination directory navigated to either graphically or through command line 3. Files are stored and ordered according user needs and file extensions 4. Contention is closed

UNIT	ICAITD209A Writing for the world wide web
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Content	Can be considered to include information and interactive features such as product information, company information, copyright and disclaimer notices, a site search engine, site map, frequently asked questions, what's new, customer specific information, customer only information, error messages, instructions, feedback mechanisms, reference pages, forms, background articles, ratings / rankings / testimonials / quotes from reviews, hyperlink titles. Content may be text, video, audio, graphics, animation etc. The specific content solution will be different for each site.
Content usability	Relates to how easy it is for the user to grasp the nature and extent of a site's content, and then how easy it is for them to explore, digest and in some cases interact with that content. Usability should also account for handicapped persons through devices such as captions and ALT tags for images and providing the same information in a number of formats.
File Transfer Protocol clients	Variables may include, but are not limited to, a wide variety of commercial available tools such as: <ul style="list-style-type: none"> • AXY FTP for Windows, Linux and Unix • Dreamweaver • MS Frontpage, • CuteFTP • Win 95/NT File sharing, • MS Internet Explorer graphical FTP,
E-commerce models	Includes any kind of business-related transaction conducted with the assistance of electronic tools across and within organisations or with individual customers. May include Brochure Site, Customer Service Site, Real Time Site, Quote Aggregator, Insurance Mall, Direct Channel, Virtual Carrier, Quote Mall, Agent Mall, Consumer Auction, Carrier Auction, Time Limited Information, Investor Relations, Technical Support, Pre Sales Support and Corporate Awareness, Proprietary Standard Promotion. E-commerce models are changing all the time and the above are just an example of possible models
E-Business	Encompasses how organisations structure themselves and capture information, manage their workers, relate and partner with other organisations and groups to achieve effective functioning, efficient operations and cultural shifts
Knowledge Economy	Involves all individuals participating on-line for professional or personal research and learning, communicating with friends or associates and the pursuit of leisure activities. The knowledge economy is broader than on-line participation and includes knowledge workers and organisations and recognises the value of life long learning and the need to capture knowledge within organisations to ensure effective functioning.

EVIDENCE GUIDE	
-----------------------	--

Critical aspects of evidence	Assessment must confirm the ability to develop content for a website that meets audience and client needs
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITD209A Writing for the world wide web
-------------	--

Underpinning skills and knowledge

Underpinning Knowledge

- Content features such as clarity, scan ability, readability and the intuitiveness of micro-content elements
- The function and features of micro-content elements such as headings, highlighted words, link text etc
- The relationship between content and site design
- The function and features of style guides
- Web design and usability
- Copyright and intellectual property
- National Privacy Principle Guidelines (to be published in October 2001)
- The Commonwealth Privacy Act 1988 as amended by the Privacy Amendment (Private Sector) Act 2000.
- The National Privacy Principles

Underpinning Skills

- Identifying target audiences
- Analysing audience needs
- Identifying relevant content
- Determining appropriate content channels and formats
- Writing content

Resources

This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills

To demonstrate competence in this unit the candidate will need access to:

- style guides and templates where they exist
- web site specification
- current software including word processing and or web development software as determined by writing requirements

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competency

UNIT	ICAITD209A Writing for the world wide web
-------------	--

Context

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to:

- demonstrate some relevant theoretical knowledge; apply a range of well developed skills;
- apply known solutions to a variety of predictable problems; perform processes that require a range of well developed skills where some discretion and judgement is required;
- interpret available information, using discretion and judgement;
- take responsibility for ones own outputs in work and learning;
- and take limited responsibility for the output of others.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	2	2	1	2	3

UNIT	ICAITD210A Prepare technical documentation
-------------	---

FIELD	Documentation
--------------	----------------------

DESCRIPTION	This unit defines the competency required to create documentation that is clear to the target audience and easy to navigate through the content
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Support, the teamwork functional areas and documentation.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Documentation needs are identified and analysed	<ol style="list-style-type: none"> 1. Documentation requirements are identified in conjunction with the client 2. Documentation requirements are interpreted, evaluated and confirmed 3. Scope of work is defined that details time, technology and resource constraints 4. Scope of work is validated by client as required 5. Information requirements are identified and analysed with reference to layout and document structure 6. Content format and channels are identified with reference to project scope 7. Templates and style guides are identified where relevant
2. Documentation is designed	<ol style="list-style-type: none"> 1. Information sources are identified as relevant to required content 2. Content is researched and identified with reference to scope of work and identified format and channels 3. Relevant content is analysed and extracted with reference to information requirements and in accordance with relevant copyright restrictions. 4. Structure of the documentation is developed with reference to flow of information, style, tone and content format 5. Document structure is validated by client as required
3. Documentation is developed	<ol style="list-style-type: none"> 1. Content is presented in a clear and concise way so as to meet audience needs as defined by scope of work 2. Technical terminology is translated to plain English as required 3. Content format and channels are applied in accordance with relevant standards

UNIT	ICAITD210A Prepare technical documentation
------	---

4. Documentation is evaluated, edited and prepared for publication	<ol style="list-style-type: none"> 1. Feedback is received from subject matter experts in a timely and appropriate manner following client review / revision procedures as required 2. Document is edited to ensure technical and grammatical accuracy 3. Document is completed to meet client requirements and scope of work 4. Document is prepared for publication according to client requirements
--	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

Technical Documentation	Technical documentation can include project specifications, reports, help references, technical manuals, training materials and self paced tutorials, on line help, user guides, brochures
Content Format And Channels	Content can include text, audio, animation, and graphics provided through books, manuals, CD-ROMs, computer based tutorials, help screens and the world wide web etc
Content	Can be considered to include information and interactive features such as product information, company information, copyright and disclaimer notices, site map, frequently asked questions, what's new, customer specific information, customer only information, error messages, instructions, feedback mechanisms, reference pages, forms, background articles, ratings / rankings / testimonials / quotes from reviews, hyperlink titles.
Documentation standards	Can include, but are not restricted to policy relating to sign-off, storage, distribution, revision Standards can include ISO/AS standards, organisational standards, project standards Can include: tools for documenting eg. word processing packages, desktop publishing packages.
Types of documentation	Can include, but are not restricted to: technical manuals and procedure manuals, training materials in either hard copy, electronic copy, on-line help, Internet/intranet.
Templates	Style of templates will vary according to type of documentation and tools used to undertake documentation

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to create documentation that is clear to the target audience and easy to navigate through the content
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/ support units.

UNIT	ICAITD210A Prepare technical documentation
------	---

Underpinning skills and knowledge

Underpinning knowledge:

- Content features such as clarity and readability
- Instructional design where relevant
- The function and features of templates and style guides
- Document design web design and usability

Underpinning skills:

- The use of word processing software or multimedia authoring tools as required by project scope
- Identifying target audiences
- Analysing audience needs
- Identifying relevant content
- Determining appropriate content channels and formats
- Writing content

Resources

This competency can be assessed in the workplace or in a simulated environment. Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures, quality projects, questioning on underpinning knowledge and skills

To demonstrate competence in this unit the candidate will need access to:

- Technical specifications
- Documentation standards

Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Simulated activities must closely reflect the workplace and may need to take place over a period of time to allow the candidate to fully demonstrate competence

UNIT	ICAITD210A Prepare technical documentation
------	---

Context

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.

Applications involve responsibility for, and limited organisation of, others.

An individual demonstrating these competencies would be able to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts;
- apply solutions to a defined range of unpredictable problems;
- identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas;
- identify, analyse and evaluate information from a variety of sources;
- take responsibility for ones own outputs in relation to specified quality standards;
- and take limited responsibility for the quantity and quality of the output of others.

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	2	1	3	3

11. Project Management

These Project Management Competency Standards were developed by the Australian Institute of Project Management and endorsed in 1996. They were previously known by the PMX prefix.

ICAITPM129A	Apply skills in project integration.....	11-2
BSX154L402	Apply skills in scope management	11-5
BSX154L403	Apply skills in time management	11-7
BSX154L404	Apply skills in cost management	11-10
BSX154L405	Apply skills in quality management.....	11-13
BSX154L406	Apply skills in human resources management.....	11-16
BSX154L407	Apply skills in communications management.....	11-19
BSX154L408	Apply skills in risk management	11-22
BSX154L409	Apply skills in procurement management.....	11-25
BSX154L501	Guide application of project integrative processes.....	11-28
BSX154L502	Guide application of scope management.....	11-31
BSX154L503	Guide application of time management.....	11-34
BSX154L504	Guide application of cost management.....	11-37
BSX154L505	Guide application of quality management	11-40
BSX154L506	Guide application of human resources management	11-43
BSX154L507	Guide application of communications management	11-46
BSX154L508	Guide application of risk management.....	11-49
BSX154L509	Guide application of procurement management	11-52
BSX154L601	Manage project integration	11-55
BSX154L602	Manage scope	11-58
BSX154L603	Manage time.....	11-61
BSX154L604	Manage cost.....	11-65
BSX154L605	Manage quality	11-68
BSX154L606	Manage human resources	11-72
BSX154L607	Manage communications	11-75
BSX154L608	Manage risk.....	11-79
BSX154L609	Manage procurement	11-83

UNIT	ICAITPM129A Apply skills in project integration
-------------	--

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Integration is the management of overall project scope in the context of schedules, budgets, risk and contracts towards establishing agreed baselines for supplier/client requirements. Integration involves the management of the other eight functions of project management, and making trade-offs among competing objectives and alternatives in order to meet or exceed project objectives throughout the project life cycle, taking into consideration the often conflicting influences of the internal and external environments.
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is based on the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to integration of the nine functions of project management	<ol style="list-style-type: none"> 1. Project stakeholders are identified with guidance of higher project authorities 2. The requirements of all project management functions are identified, with guidance of higher project authorities and other relevant stakeholders, for later determination of achievable project objectives 3. Project sub-plans are collated together for higher project authority review for implementation as the basis for project management
2. Contribute to the coordination of internal and external environments	<ol style="list-style-type: none"> 1. Information relating to established internal working environment is collected together for higher authority monitoring purposes, to ensure work is conducted effectively throughout the project life cycle 2. Project objectives are aligned with organisation objectives and documented incrementally for higher authority approval throughout the project life cycle
3. Contribute to the support of project activities throughout life cycle	<ol style="list-style-type: none"> 1. Agreed project phases, approval points and review points are documented and distributed to higher authorities, to accommodate all project management functions requirements 2. Progress reports in relation to established project baselines are distributed to all relevant team members, to provide a measure of performance throughout all phases of the project life cycle 3. Established finalisation plans, procedures and activities are clearly documented and distributed to all team members, to ensure final outcomes of project phases and of the overall project meet agreed project objectives 4. Integration management issues and recommended improvements are identified with other team members, documented and passed on to higher project authority for application in future projects

UNIT	ICAITPM129A Apply skills in project integration
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Project objectives	Achievable project objectives may be determined, within the constraints of performance, time, cost, quality, resources and skill, from the requirements of: the client; the supplier/contractor; end-user(s); higher project authorities
Project Plan	The project plan may be a single document or a covering document that integrates the requirements of the nine functions of project management using appropriate formats and procedures. Baselines may include: conceptual baseline; start-up baseline; implementation baseline
Internal environment	The internal environment may include: physical location of project; layout of project personnel and equipment; personal working conditions; team dynamics; identity and differentiation of the project within the larger environment
External environment	The external environment may include: the parent organisation, enterprise, industry; employee representative groups, e.g. unions, professional associations, lobby groups; political, social and societal influences; public and media interest; the physical environment, e.g. geography, ecology, sensitivity; external stakeholder expectations
Levels of management	Levels of management may include: corporate/ enterprise; business unit; program/ project; operations/ technical. The project may be affected by conflicting objectives and constraints within and between these levels of management which may vary over time
Finalisation activities	Finalisation activities may include: transition of responsibility/ownership of project deliverables/products; transfer of assets to the client or originating owner; warranty requirements; project evaluation; final audit/reconciliation; settling of financial liabilities; finalisation of account codes and other financial documentation; forwarding finalisation report to higher project authority
Integration management	Integration management issues and recommended improvements may include evaluation of the effectiveness of established success and failure criteria and suggestions for improvement. Lessons learnt may be reflected in changes to knowledge, training programs, data records and process instructions

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to assist maintaining information on the overall project scope in the context of schedules, budgets, risk and contracts towards establishing agreed baselines for supplier/client requirements.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT

ICAITPM129A Apply skills in project integration

Underpinning skills and knowledge**Underpinning knowledge**

- The project process, the project life-cycle and the relationship between project phases
- Current business practices in relation to preparing reports
- Identifying components of the business planning process relevant to the development of IT business solutions
- Broad knowledge incorporating some theoretical concepts of planning and control procedures, resource management and risk management
- Broad knowledge incorporating some theoretical concepts of a range of suitable methodologies, techniques and tools available to project managers
- Broad knowledge incorporating some theoretical concepts of internal and external environment factors that may affect the project
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities
- Broad knowledge base of vendor product directions
- Broad knowledge of the client business domain
- Broad knowledge base of quality assurance practices
- A basic knowledge of information gathering techniques

Underpinning skills

- Problem solving skills for a defined range of unpredictable problems
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information from a variety of sources
- Teamwork skills involve the contribution to solutions and goals which achieve specified quality standards.
- Plain English literacy and communication skills in relation to dealing with clients and team members

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L402 Apply skills in scope management
-------------	--

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	The scope of a project comprises a combination of the end products of the project and the work required to produce them. Scope management involves the initial justification of the project and initial project start-up, as well as the ongoing definition of deliverables, objectives and constraints. Project scope forms the foundation of the project plan and the basis from which other related plans are developed and the focus of their integration. In normal circumstances this unit will be carried out in a team environment
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas.
-------------------------------------	---

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to scope definition	<ol style="list-style-type: none"> 1. A contribution is made to the identification of project deliverables within area of expertise 2. A contribution is made to the identification of the goals expressed by the stakeholders 3. A contribution is made to identify measurable outcomes within area of expertise to enable evaluation of project performance 4. To facilitate scope planning and management within area of expertise Tasks are defined and resources are estimated
2. Contribute to Situation Analysis	<ol style="list-style-type: none"> 1. Potential advantages/disadvantages are highlighted through contribution to SWOT analysis 2. Organisational structure and culture is documented and analysed 3. Skills of involved stakeholders and domain experts, and suppliers' input to the project are recorded
3. Apply project scope controls	<ol style="list-style-type: none"> 1. Work is undertaken to plan and establish change control procedures 2. Progress is measured to determine and report potential, perceived and actual scope changes to higher project authority for resolution 3. Assistance is provided in the review of project outcomes to determine the effectiveness of initial and subsequent scope management approaches

RANGE OF VARIABLES	
VARIABLE	SCOPE
Project deliverables	Project deliverables may include all products and services defined within the project scope.
Strengths, Weaknesses, Opportunities, Threats	The level of time devoted to SWOT analysis is a factor of the organisational culture and the size of the project both in terms of dollars and timeframe
Change Control	Designated elements of project liable to change, e.g. hardware and software components, designated project documentation, e.g. plans, schedules, directives, guidelines and instructions

UNIT

BSX154L402 Apply skills in scope management

EVIDENCE GUIDE

Critical aspects of evidence

Assessment of competency will confirm the ability to contribute to scope management by providing input in:

Identifying project benefits and outcomes, listing deliverables, tasks and activities, contributing to the development of work, organisation or product breakdown structures, listing measurable project outcomes, lists of project deliverables, constraints and outcomes, task definition and resource allocation records, progress reports, scope change proposals, project reviews, records of major scope issues

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

Underpinning skills and knowledge**Underpinning knowledge**

- A broad knowledge base incorporating some theoretical concepts of three or more current industry systems development methodologies
- Current industry accepted hardware and software products with broad knowledge of general features and capabilities
- The need for scope definition during project start-up
- The importance of, and techniques related to, task definition
- The place of scope management in the context of the project life cycle
- An understanding of scope change controls
- Methods to define products and activities, eg simple work breakdown structure

Underpinning skills

- Estimating skills in relation to current practices and a variety of complex and non-routine activities to determine potential and actual scope changes
- Time management in relation to current practices and a variety of complex and non-routine activities, such as change control procedures
- Problem solving skills for a defined range of predictable problems, such as scope definition
- Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, such as applying scope controls
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, such as scope definition and situational analysis
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, such as documenting project scope and controls

Resources

This competency can be assessed in the workplace or in a simulated environment. Access to user request data and estimates, information used to determine the project scope. Peers for obtaining information on the extent and quality of the contribution made.

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts. The assessment period may include initial scope determination, however, the success will not be known until the actual project timings are known

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L403 Apply skills in time management
-------------	---

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Management of project time relates to the activities associated with development, analysis and control of project schedules. Meeting project objectives within the identified time frame is a critical factor in determining project success along with capability, cost and quality
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to the development of project schedules	<ol style="list-style-type: none"> 1. A contribution is made, to determine the duration and effort, sequence and dependencies of tasks to meet project objectives 2. Project scheduling tools and techniques are used to help establish and integrate schedule, resource allocation and financial requirements in time management plans 3. A contribution is made to the agreement process and communication of the schedule to the client and other stakeholders 4. A reporting path and line of responsibility are developed and published for conflict resolution and prioritisation
2. Apply personal time management procedures	<ol style="list-style-type: none"> 1. Methods are developed to administer Notes, Check Lists and Job lists 2. Time methods are applied to appointment, meeting, timeframe surety 3. Capable methods of prioritisation and balance are developed when dealing with timeframe issues
3. Apply schedule management skills	<ol style="list-style-type: none"> 1. Mechanisms are used to measure, record and report progress of activities in relation to the agreed schedule and plans 2. Variance between actual and planned progress is recorded and reported to higher project authority for remedial action 3. Contribution is made to the analysis of options and forecasting of impact of changes on the schedule 4. Agreed changes to the schedule are implemented and plans are updated as directed to accommodate changing situations throughout the project life cycle
4. Participate in assessing time management	<ol style="list-style-type: none"> 5. Assistance is provided in the review of project outcomes to determine the effectiveness of time management outcomes 6. Scheduling and time management issues and responses are reported to higher project authority for application in future projects

UNIT	BSX154L403 Apply skills in time management
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE
Time management activities	Time management activities may be undertaken: within established organisational framework, procedures and routines, under limited guidance and supervision, within agreed authorisation and limits, in a multi-disciplinary environment subject to frequent change
Communication and reporting	Communication and reporting may involve: other team members, project team leaders/co-ordinators, colleagues internal and/or external to the organisation, members of client organisation as authorised
Records	Records may take the form of: lists of potential schedule events, diaries, incident logs, occurrence reports and other such documentation, project and/or organisation files and records
Project reviews	Project reviews may be undertaken on completion of: agreed major milestones, eg phases, sub-contracts, delivery of major deliverables, change of key personnel, finalisation of project and other agreed milestones
Time management tools and techniques	Time management tools and techniques may involve: use of personal experience and subject matter experts, assisting in qualitative and/or quantitative time analysis, such as schedule simulation, decision analysis, contingency planning, alternative strategy development, using specialist time analysis tools to provide output to assist in the decision making process
Information to be drawn on	Information to be drawn on may include: project guidelines and instructions, designated standard operating procedures and regulations, project management body of knowledge

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to participate in the management of project time, such as, activities associated with development, analysis and control of project schedules. Meeting project objectives within the identified time frame is a critical factor in determining project success
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT	BSX154L403 Apply skills in time management
-------------	---

Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • A broad knowledge base incorporating some theoretical concepts of three or more current industry systems development methodologies • Current industry accepted hardware and software products with broad knowledge of general features and capabilities • The need for time management within the broad project management framework • The application of time management tools and techniques within the individual's area of expertise • How, when and why schedule identification, monitoring and reporting processes are implemented • The importance of the individual's contribution to the cost management process 	Underpinning skills	<ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, particularly regarding variance between actual and planned progress • Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in system development, particularly when developing project schedules to meet project objectives • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, particularly when developing project schedules to meet project objectives and assessing time management • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when scheduling and time management issues and responses are reported to higher project authority • Risk management skills in relation to identifying, analysing and evaluating risk and applying solutions to a define range of unpredictable problems, for example when developing project schedules to meet project objectives
Resources	Requirements and data collected to be used as input to the timeframe calculations. Peers for obtaining information on the extent and quality of the contribution made. Documentation and method of approach to the time constraints; lists of project activities, including schedule, resource and cost estimates; use of scheduling tools and techniques; records of progress and of deviations from the project schedule; reports to higher project authority; ongoing input to the project schedule; contribution to project schedule review(s), including reports of lessons learnt and recommendations.		
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts. The assessment period may include initial scope determination; however, the success will not be known until the actual project timings are known		
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills		

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L404 Apply skills in cost management
-------------	---

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Cost management includes the processes required to identify, analyse and refine project costs to produce a budget and is used as the principal mechanism to control project cost. Cost management is a factor critical to the success of the project, along with capability, time and quality
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to the development of the project budget	<ol style="list-style-type: none"> 1. Estimated costs are determined for relevant tasks and activities and communicated to higher project authority for inclusion in project budget 2. Costs are mapped against time and communicated to higher project authority for inclusion in project cash flow 3. Contribution is made to the development of cost strategies, financial authorisation and cost management plans 4. Preparation of tax minimisation strategies and the organisation's options regarding finance are contributed to
2. Monitor project costs	<ol style="list-style-type: none"> 1. Income and expenditure is monitored against agreed project plans and budgets to facilitate cost management throughout the project life cycle 2. Established cost management methods, techniques and tools are used to identify and report variations in the budget to higher project authority for action 3. Agreed actions are implemented and monitored, and progress is reported to higher project authority to ensure cost objectives are achieved throughout the project life cycle
3. Contribute to cost finalisation process	<ol style="list-style-type: none"> 1. Assistance is provided in finalisation and transfer of financial assets, liabilities and records to the client or relevant through life support agency 2. Assistance is provided in the review of project outcomes to determine the effectiveness of initial and subsequent cost management approaches 3. Cost management issues and responses are reported to higher project authority for application in future projects

RANGE OF VARIABLES	
VARIABLE	SCOPE
Communication and reporting	Communication and reporting may involve: other team members, project team leaders/coordinators, colleagues internal and/or external to the organisation, members of client organisation as authorised
Information to be drawn on	Information to be drawn on may include: project guidelines and instructions, designated standard operating procedures and regulations, historical data, size models

UNIT	BSX154L404 Apply skills in cost management
-------------	---

Cost management activities	Cost management activities may be undertaken: within established organisational framework, procedures and routines, under limited guidance and supervision, within agreed authorisation and limits, in a multi-disciplinary environment subject to frequent change
Processes	Processes may include: measurement of actual progress against planned milestones, recording and reporting of variations, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost
Records	Records may take the form of: lists of potential costs, invoice and payment records, cost verification and validation documentation, input to cost management plans, reports to higher authority, project and/or organisation files and records, cost management lessons learnt
Determining limits and extent of financial authority	Determining limits and extent of financial authority may be: by designation by higher authority, in accordance with set organisational standards and procedures, in accordance with legal requirements
Cost estimates	Cost estimates may include: labour, parts, material and logistic support. Overhead, profit and contingency would not normally be included at this level

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to participate in the protection of the organisation’s resources by identifying the best value for money when purchasing goods/services, providing early warning of cost over runs, maintaining adequate records and controls	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • The need for and use of size estimation models to identify, analyse and refine project costs to produce a budget • The need for cost management within the broad project management framework, as the principal mechanism to control project cost • The place of cost management in the context of the project life cycle and other project management functions • The application of cost management tools and techniques within the individual’s area of expertise • How, when and why cost management processes are implemented • The importance of the individual's contribution to the cost management process 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example to identify, analyse and refine project costs to produce a budget • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example when contributing to the development of the project budget • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when cost management issues and responses are reported to higher project authority • Purchasing guidelines for the project/ client, for example the development of cost strategies, financial authorisation and cost management plans
Resources	Access to the internal reporting system of the organisation. Project documentation and the system requirements. Peers for obtaining information on the extent and quality of the contribution made. Cost estimates in area of expertise, use of cost management tools and techniques, records of income and expenditure, records and reports of progress of cost activities, implementation, maintenance and control functions of the cost management system, cost review(s), including reports of lessons learnt and recommendations for improvement	

UNIT

BSX154L404 Apply skills in cost management**Consistency**

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L405 Apply skills in quality management
-------------	--

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Quality is a factor critical to success of the project along with capability cost and time. Project quality management comprises the activities required to optimise the quality policy and the processes of the project. Quality management applies objective standards and processes to achieve the largely subjective goal of customer satisfaction through the continuous application of quality planning, quality control, quality assurance and continuous improvement throughout the project life-cycle
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to quality planning	<ol style="list-style-type: none"> 1. Contribution is made, within team process, to the identification of quality stakeholders, quality objectives, standards and levels to facilitate quality outcomes 2. Contribution is made to the development of quality requirements in project plans and processes 3. Areas within the project which can be improved are identified 4. The success of the project by involving, informing and empowering all areas of the organisation is contributed to
2. Contribute to implementation of	<ol style="list-style-type: none"> 1. Work is undertaken in accordance with agreed quality standards and guidelines to ensure project quality outcomes meet project quality assurance 2. Records and documentation are maintained in accordance with set procedures to facilitate quality management and to provide an audit trail 3. Results of project activities and product performance are documented and evaluated to determine compliance with agreed quality standards 4. Shortfalls in quality outcomes are reported to higher project authority to enable appropriate action to be initiated
3. Contribute to continuous improvement process	<ol style="list-style-type: none"> 1. Assistance is provided in the ongoing review of project outcomes to determine the effectiveness of quality management activities 2. Quality management issues and responses are reported to higher project authority for application in future projects

UNIT	BSX154L405 Apply skills in quality management
------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Quality management activities	Quality management activities may be undertaken: within established organisational framework, procedures and routines, under limited guidance and supervision, within agreed authorisation and limits, in a multi-disciplinary environment subject to frequent change
Information to be drawn on	Information to be drawn on may include: project guidelines and instructions, designated standard operating procedures and regulations, quality standards and guidelines, organisation and project standards
Quality Assurance	Define terms of reference. Improve internal processes. Improve communication with participants. Improve feedback avenues
Quality Control activities	Quality Assurance incorporates inspections and audits in compliance with quality control guidelines.

EVIDENCE GUIDE					
Critical aspects of evidence	Assessment must confirm the ability to participate in activities required to optimise the quality policy and the processes of the project.				
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.				
Underpinning skills and knowledge	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #333; color: white; text-align: left; padding: 5px;">Underpinning knowledge</th> <th style="background-color: #333; color: white; text-align: left; padding: 5px;">Underpinning skills</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top; padding: 5px;"> <ul style="list-style-type: none"> The need for quality management within the broad project management framework The place of quality management in the context of the project life cycle and other project management functions, The application of quality management tools and techniques within the candidate's area of expertise How, when and why quality management processes are implemented The importance of the individual's contribution to the quality management process </td> <td style="vertical-align: top; padding: 5px;"> <ul style="list-style-type: none"> QM Skills/Tools, the evaluation, selection and use of an appropriate tool and QM skills Problem solving skills for a defined range of predictable problems, for example when determining the effectiveness of quality management activities Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example when contributing to quality planning Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in quality management, for example when contributing to the continuous improvement process Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when contributing to quality planning. Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when quality management issues and responses are reported to higher project authority </td> </tr> </tbody> </table>	Underpinning knowledge	Underpinning skills	<ul style="list-style-type: none"> The need for quality management within the broad project management framework The place of quality management in the context of the project life cycle and other project management functions, The application of quality management tools and techniques within the candidate's area of expertise How, when and why quality management processes are implemented The importance of the individual's contribution to the quality management process 	<ul style="list-style-type: none"> QM Skills/Tools, the evaluation, selection and use of an appropriate tool and QM skills Problem solving skills for a defined range of predictable problems, for example when determining the effectiveness of quality management activities Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example when contributing to quality planning Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in quality management, for example when contributing to the continuous improvement process Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when contributing to quality planning. Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when quality management issues and responses are reported to higher project authority
Underpinning knowledge	Underpinning skills				
<ul style="list-style-type: none"> The need for quality management within the broad project management framework The place of quality management in the context of the project life cycle and other project management functions, The application of quality management tools and techniques within the candidate's area of expertise How, when and why quality management processes are implemented The importance of the individual's contribution to the quality management process 	<ul style="list-style-type: none"> QM Skills/Tools, the evaluation, selection and use of an appropriate tool and QM skills Problem solving skills for a defined range of predictable problems, for example when determining the effectiveness of quality management activities Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example when contributing to quality planning Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in quality management, for example when contributing to the continuous improvement process Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when contributing to quality planning. Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when quality management issues and responses are reported to higher project authority 				

UNIT	BSX154L405 Apply skills in quality management
-------------	---

Resources	Access to organisation records, documentation from service areas, users. Peers and supervisors for obtaining information on the extent and quality of the contribution made. Charts, diagrams, historical records and demonstrable proof that quality has been increased; records of input to identification of quality stakeholders, quality objectives, standards and levels; records of input to the quality management plan; records of use of quality management tools; records of inspections and reports on quality outcomes; reports of progress on quality issues; input to quality reviews, including reports of lessons learnt and recommendations for improvement
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	2	2	2	2

UNIT	BSX154L406 Apply skills in human resources management
-------------	--

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Project human resource management (HRM) involves the development of individuals and sub-teams into a cohesive project unit with the common purpose of meeting project objectives. Human resource management includes determining the resources required to manage project tasks, both within the core project team and the broader organisational matrix. Staff recruitment, selection, training and development is conducted to accommodate change throughout the project life-cycle
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Identify critical issues	<ol style="list-style-type: none"> 1. Internal organisational philosophy and function of HR are determined 2. Responsibilities, goals and organisational expectations are determined and published 3. Method of appraisal is developed within the group which is acceptable to both the group and the organisation 4. All skills and beneficial attributes of organisational staff are fully identified and are used as input to development plan 5. Communication and dialogue is established with organisation's HR department
2. Work in a team environment	<ol style="list-style-type: none"> 1. Work is undertaken in accordance with established HRM and project plans, guidelines and procedures to achieve designated project objectives 2. Contribution is made to groups working in a multi-disciplinary environment to meet project workload requirements throughout the project life cycle 3. Potential and actual conflicts are resolved in accordance with agreed dispute resolution processes or are reported to higher project authority for resolution 4. HRM issues are reported to higher project authority to aid the continuous improvement process
3. Undertake staff development and training	<ol style="list-style-type: none"> 1. Individual's responsibilities, authority and personal performance measurement criteria are agreed with higher project authority to provide a basis for ongoing assessment 2. Training and development is undertaken individually and in teams to maximise effectiveness of individual in achieving HRM and project objectives 3. Career development activities are undertaken to improve long term effectiveness of the individual to the project and the organisation

UNIT	BSX154L406 Apply skills in human resources management
-------------	--

RANGE OF VARIABLES

VARIABLE	SCOPE
HRM scope	The scope of the HR involvement will generally be directed to organisational staff seconded to the development project. With respect to contract staff, the HR involvement will be to ensure the organisation is both protected from damage and has secured the most appropriate resource for the task
Work guidelines and procedures	Work guidelines and procedures may be in accordance with: project human resources management plan, organisation project management procedures, staffing plan/job description, industrial relations agreements and guidelines, professional operating standards
HRM development and training	HRM development and training may be undertaken formally or informally, and may include: project management, general management, project administration, eg computer applications, filing systems etc, specialist/professional skills and career progression, interpersonal communications, team building and group activities

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to participate in determining the resources required to manage project tasks, both within the core project team and the broader organisational matrix		
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.		
Underpinning skills and knowledge	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <p>Underpinning knowledge</p> <ul style="list-style-type: none"> • The need for human resources management within the broad project management framework • The place of human resources management in the context of the project life cycle and other project management functions • The application of human resources management tools and techniques within the candidate's area of expertise • How, when and why human resources management processes are implemented • The importance of the individual's contribution to the human resources management process </td> <td style="vertical-align: top; width: 50%;"> <p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example potential and actual conflicts are resolved in accordance with agreed dispute resolution processes • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example when identifying critical issues • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when working in a team environment. • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when HRM issues are reported to higher project authority </td> </tr> </table>	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • The need for human resources management within the broad project management framework • The place of human resources management in the context of the project life cycle and other project management functions • The application of human resources management tools and techniques within the candidate's area of expertise • How, when and why human resources management processes are implemented • The importance of the individual's contribution to the human resources management process 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example potential and actual conflicts are resolved in accordance with agreed dispute resolution processes • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example when identifying critical issues • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when working in a team environment. • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when HRM issues are reported to higher project authority
<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • The need for human resources management within the broad project management framework • The place of human resources management in the context of the project life cycle and other project management functions • The application of human resources management tools and techniques within the candidate's area of expertise • How, when and why human resources management processes are implemented • The importance of the individual's contribution to the human resources management process 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example potential and actual conflicts are resolved in accordance with agreed dispute resolution processes • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example when identifying critical issues • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when working in a team environment. • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when HRM issues are reported to higher project authority 		
Resources	Potentially, assessment requires access to personnel records and other secure documents. Peers and supervisors for obtaining information on the extent and quality of the contribution made.		
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.		
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills		

UNIT

BSX154L406 Apply skills in human resources management**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L407 Apply skills in communications management
-------------	---

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Project communications management provides a critical link between people, ideas and information at all stages in the project life-cycle. Project communications management ensures the timely and appropriate generation, collection, dissemination, storage and disposition of project information via formal structures and processes to aid in decision making, and the control of informal communication networks to aid the achievement of project objectives.
--------------------	--

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to communications planning	<ol style="list-style-type: none"> 1. Relevant information requirements are identified and contribution is made to the development of overall project information requirements 2. Contribution is made, within team process, to the development and implementation of the communications management plan and establishment of communications networks 3. Relationships are established with both project members and people critical to the communication and reporting paths
2. Conduct information management activities	<ol style="list-style-type: none"> 1. Information is gathered, validated, stored, retrieved, filtered and disseminated as directed, within agreed procedures to aid decision making processes 2. Information is maintained in an agreed structured manner to ensure security and auditability of data
3. Communicate project information	<ol style="list-style-type: none"> 1. Communication within project, with client and other stakeholders is undertaken within agreed networks, processes and procedures to ensure clarity of understanding of objectives 2. Reports are written and released in accordance with authorisation, or drafted for release by higher project authorities in accordance with agreed processes and procedures 3. Information and advice is sought from appropriate project authorities when in doubt
4. Contribute to assessment of communications management outcomes	<ol style="list-style-type: none"> 1. Assistance is provided in the ongoing review of project outcomes to determine the effectiveness of communications management activities 2. Communications management issues and responses are reported to higher project authorities for application in future projects

UNIT	BSX154L407 Apply skills in communications management
------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE
Communication	Communication may be undertaken: within established organisational framework, procedures and routines, under limited guidance and supervision, within agreed authorisation and limits, in a multi-disciplinary environment subject to frequent change
Project Management Information Systems (PMIS)	Project Management Information Systems (PMIS) range from complex computer-based systems to simple manual systems. Use of the PMIS would normally be within established guidelines and procedures and clearly defined lines of authority
Communication by the individual	Communication by the individual may be in the form of: written reports, briefs, minutes, letters and other such documentation, oral briefings, advice and conversations, telephone calls, computer generated, eg electronic data transfer, Internet

EVIDENCE GUIDE					
Critical aspects of evidence	Assessment must confirm the ability to participate in ensuring the timely processing of project information via formal structures and processes to aid in decision making, and the control of informal communication networks to aid the achievement of project objectives.				
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.				
Underpinning skills and knowledge	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #333; color: white;">Underpinning knowledge</th> <th style="background-color: #333; color: white;">Underpinning skills</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • The need for communications management within the broad project management framework • The place of communications management in the context of the project life cycle and other project management functions • The application of communications management tools and techniques within the individual's area of expertise • Drafting, obtaining endorsement and forwarding of reports to higher authority • How, when and why communications management processes are implemented • The importance of the individual's contribution to the communications management process </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example when information requirements are identified and contribution is made to the development of overall project information requirements • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example during the development and implementation of the communications management plan and establishment of communications networks • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example during the development and implementation of the communications management plan and establishment of communications networks • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when communications management issues and responses are reported to higher project authorities </td> </tr> </tbody> </table>	Underpinning knowledge	Underpinning skills	<ul style="list-style-type: none"> • The need for communications management within the broad project management framework • The place of communications management in the context of the project life cycle and other project management functions • The application of communications management tools and techniques within the individual's area of expertise • Drafting, obtaining endorsement and forwarding of reports to higher authority • How, when and why communications management processes are implemented • The importance of the individual's contribution to the communications management process 	<ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example when information requirements are identified and contribution is made to the development of overall project information requirements • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example during the development and implementation of the communications management plan and establishment of communications networks • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example during the development and implementation of the communications management plan and establishment of communications networks • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when communications management issues and responses are reported to higher project authorities
Underpinning knowledge	Underpinning skills				
<ul style="list-style-type: none"> • The need for communications management within the broad project management framework • The place of communications management in the context of the project life cycle and other project management functions • The application of communications management tools and techniques within the individual's area of expertise • Drafting, obtaining endorsement and forwarding of reports to higher authority • How, when and why communications management processes are implemented • The importance of the individual's contribution to the communications management process 	<ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example when information requirements are identified and contribution is made to the development of overall project information requirements • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example during the development and implementation of the communications management plan and establishment of communications networks • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example during the development and implementation of the communications management plan and establishment of communications networks • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when communications management issues and responses are reported to higher project authorities 				
Resources	Access to project communiqués and reports, interview associated parties. Peers and supervisors for obtaining information on the extent and quality of the contribution made.				

UNIT	BSX154L407 Apply skills in communications management
-------------	---

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts.

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L408 Apply skills in risk management
-------------	---

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Risks are factors which might adversely affect project outcomes. Risk management includes the processes concerned with identifying, analysing and responding to uncertainty. It also includes maximising the results of positive events and minimising the consequences of adverse events. The risk management process is completed through review of the plan and recording of lessons learnt.
--------------------	---

RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to the identification of risk	<ol style="list-style-type: none"> 1. Contribution is made, within team process, to identify and prioritise potential risk events throughout the project life cycle 2. Input is provided to help develop risk management strategies and risk management plans within established guidelines 3. Established risk management methods, tools and techniques are used to assist in the analysis and reporting of identified risk events to higher project authority
2. Conduct risk control activities	<ol style="list-style-type: none"> 1. Project activities are undertaken in accordance with agreed project and risk management plans to achieve project objectives 2. Progress is measured and perceived, potential or actual risk events are reported to higher project authority for determination of response 3. Contribution is made to the implementation of agreed risk approaches and the amendment of plans to reflect the changing environment
3. Contribute to assessing risk management	<ol style="list-style-type: none"> 1. Contribution is made to the ongoing review of project outcomes to determine the effectiveness of risk management activities outcomes 2. Risk management issues and responses are reported to higher project authority for application in future projects

RANGE OF VARIABLES	
VARIABLE	SCOPE
Risk management activities	Risk management activities may be undertaken: within established organisational framework, procedures and routines, under limited guidance and supervision, within agreed authorisation and limits, in a multi-disciplinary environment subject to frequent change
Records	Records may take the form of: lists of potential risk events, risk analysis and reappraisal, risk management plans, risk diaries, incident logs, occurrence reports and other such documentation, project and/or organisation files and records, risk management lessons learnt

UNIT	BSX154L408 Apply skills in risk management
-------------	---

Risk management tools and techniques	Risk management tools and techniques may involve: escalation procedures, IT & T network and communications security policies and procedures, calling upon personal experience and/or subject matter experts, assisting in qualitative and/or quantitative risk analysis, such as schedule simulation, decision analysis, contingency planning, alternative strategy development, using specialist risk analysis tools to provide output to assist in the decision making process
Project reviews	Project reviews may be undertaken on completion of: agreed major milestones, eg phases, sub-contracts, delivery of major deliverables, change of key personnel, finalisation of project and other agreed milestones

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to participate in the processes concerned with identifying, analysing and responding to uncertainty.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • The need for risk management within the broad project management framework • The place of risk management in the context of the project life cycle and other project management functions • The application of risk management tools and techniques within the candidate's area of expertise • How, when and why risk identification, monitoring and reporting processes are implemented • The importance of the individual's contribution to the risk management process 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example when identifying potential risk events throughout the project life cycle • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example when developing risk management strategies and risk management plans • Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in risk assessment, for example when identifying potential risk events throughout the project life cycle • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when conducting risk control activities. • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when risk management issues and responses are reported to higher project authority
Resources	Access to the substantiating evidence, contracts, time lines etc. Peers and supervisors for obtaining information on the extent and quality of the contribution made. Lists of potential risk events, records of input to risk management strategies and risk management plan, lists of perceived, potential or actual risk events, risk management reports, records of input to project risk reviews, including reports of lessons learnt and recommendations for improvement	

UNIT	BSX154L408 Apply skills in risk management
-------------	---

Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L409 Apply skills in procurement management
FIELD	Project Management
DESCRIPTION	Project procurement involves the management of contracting activities from formation, such as product and contract definition, market analysis, through the tendering process up to contract formation, to contract performance, management and administration after contract award. Project procurement management concludes with contractual aspects of the project finalisation processes. Procurement activities are normally defined and planned early and refined throughout the project life-cycle to ensure changing project objectives are met. Whether involvement in the procurement process is as the client, the prime contractor, or as a sub-contractor, may influence the perspective from which the procurement activities are addressed; however, similar project management processes would normally apply.
RELATED COMPETENCY STANDARDS	The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
ELEMENT	PERFORMANCE CRITERIA
1. Contribute to procurement planning	<ol style="list-style-type: none"> 1. Contribution is made, within team process, to the determination of procurement requirements relating to goods and services 2. Contribution is made within area of expertise to the development of the procurement management plan 3. Skills are evaluated and contribution is made to the interview process when evaluating human resources
2. Contribute to contractor selection process	<ol style="list-style-type: none"> 1. Information on potential suppliers is gathered, is evaluated within area of expertise and recommendations are made to assist in selection of preferred contractors 2. Contribution is made within project teams to develop tendering and contractual documentation 3. Contribution is provided within area of expertise in evaluation of responses to determine agreed terms and conditions with preferred contractor
3. Conduct procurement activities	<ol style="list-style-type: none"> 1. Procurement information is maintained and is managed to ensure reporting, confidentiality, contract and audit requirements are met 2. Supplies are received, reconciled and are registered in accordance with established procedures to facilitate payment and through lifecycle management 3. Selection criteria, benchmark criteria, financial requirements, leasing, warranty etc, are developed when preparing tender requirements based on contractual requirements, if necessary
4. Conduct finalisation activities	<ol style="list-style-type: none"> 1. Testing and acceptance of supplies are undertaken to ensure quality and fitness for purpose of deliverables 2. Assistance is provided in the ongoing review of project outcomes to determine the effectiveness of communications management activities 3. Procurement management issues and responses are reported to higher project authority for application in future projects 4. Evaluation of tender responses and vendor offerings is participated in

UNIT	BSX154L409 Apply skills in procurement management
------	--

RANGE OF VARIABLES

VARIABLE	SCOPE
Procurement management activities may be undertaken:	<p>Within established organisational framework, procedures and routines; under limited guidance and supervision</p> <p>Within agreed authorisation and limits; in a multi-disciplinary environment subject to frequent change</p> <p>Project reviews may be undertaken on completion of: agreed major milestones, eg phases, sub-contracts; delivery of major deliverables; change of key personnel; finalisation of project and other agreed milestones</p> <p>Procurement activities may include: obtaining quotes from potential suppliers; confirming details; obtaining approvals from higher project authorities; formally receipting goods and services; conducting test and acceptance procedures; maintaining registers and lists; processing payment documentation; liaising with client, contractors and sub-contractors, and other stakeholders; conducting transfer and disposal actions</p> <p>Procurement records may take the form of: lists of potential suppliers; procurement logs, registers; quotes, invoices and receipts; test and acceptance results; assets and disposal actions; procurement reports</p>

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to participate in the management of contracting activities from formation, such as product and contract definition, market analysis, through the tendering process up to contract formation, to contract performance, management and administration after contract award.				
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.				
Underpinning skills and knowledge	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: left; width: 50%;">Underpinning knowledge</th> <th style="text-align: left; width: 50%;">Underpinning skills</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • The need for procurement management within the broad project management framework • The place of procurement management in the context of the project life cycle and other project management functions, • The application of procurement management tools and techniques within the candidate's area of expertise, • How, when and why procurement management processes are implemented, • The importance of the individual's contribution in the procurement management process </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example the determination of procurement requirements relating to goods and services • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example in relation to the contractor selection process • Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in procurement management, for example information on potential suppliers is gathered, is evaluated within area of expertise • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example within project teams when developing tendering and contractual documentation • Auditing skills in relation to identifying, analysing and evaluating information from a variety of sources, for example when documenting evaluations of tender responses and vendor offerings </td> </tr> </tbody> </table>	Underpinning knowledge	Underpinning skills	<ul style="list-style-type: none"> • The need for procurement management within the broad project management framework • The place of procurement management in the context of the project life cycle and other project management functions, • The application of procurement management tools and techniques within the candidate's area of expertise, • How, when and why procurement management processes are implemented, • The importance of the individual's contribution in the procurement management process 	<ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example the determination of procurement requirements relating to goods and services • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example in relation to the contractor selection process • Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in procurement management, for example information on potential suppliers is gathered, is evaluated within area of expertise • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example within project teams when developing tendering and contractual documentation • Auditing skills in relation to identifying, analysing and evaluating information from a variety of sources, for example when documenting evaluations of tender responses and vendor offerings
Underpinning knowledge	Underpinning skills				
<ul style="list-style-type: none"> • The need for procurement management within the broad project management framework • The place of procurement management in the context of the project life cycle and other project management functions, • The application of procurement management tools and techniques within the candidate's area of expertise, • How, when and why procurement management processes are implemented, • The importance of the individual's contribution in the procurement management process 	<ul style="list-style-type: none"> • Problem solving skills for a defined range of predictable problems, for example the determination of procurement requirements relating to goods and services • Negotiation skills in relation to self and other team members and applied to a defined range of predictable problems, for example in relation to the contractor selection process • Research skills for identifying, analysing and evaluating broad features of a particular business domain and best practice in procurement management, for example information on potential suppliers is gathered, is evaluated within area of expertise • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example within project teams when developing tendering and contractual documentation • Auditing skills in relation to identifying, analysing and evaluating information from a variety of sources, for example when documenting evaluations of tender responses and vendor offerings 				

UNIT	BSX154L409 Apply skills in procurement management
-------------	--

Resources	The organisation’s Purchasing department may be involved to provide input and resources to validate the assessment. All documentation which validates the proof of compliance will be required. Peers and supervisors for obtaining information on the extent and quality of the contribution made. Input to procurement management plans; records of potential suppliers; records of input to the contractor evaluation and selection process; procurement logs, registers and other such records of quotes, invoices, receipts, test and acceptance results, assets; and disposal actions; procurement reports; records of input to procurement reviews, including reports of lessons learnt and recommendations for improvement
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L501 Guide application of project integrative processes
-------------	--

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Integration is the management of overall project scope in the context of schedules, budgets, risk and contracts towards establishing agreed baselines for supplier/client requirements. Integration involves the management of the other eight functions of project management, and making trade-offs among competing objectives and alternatives in order to meet or exceed project objectives throughout the project life cycle, taking into consideration the often conflicting influences of the internal and external environments.
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Implement integration of the nine functions of project management	<ol style="list-style-type: none"> 1. Project stakeholders are identified with guidance of higher project authorities to determine the influence of others on achievement of project outcomes 2. The requirements of all project management functions are reviewed, with guidance of higher project authorities and other relevant stakeholders, to determine achievable project objectives 3. The project plan is developed, based on requirements of project sub-plans, agreed by higher project authority and implemented as the basis for project management 4. Designated project control mechanisms are implemented to accommodate change throughout the project life cycle
2. Coordinate internal and external environments	<ol style="list-style-type: none"> 1. The project is managed within established internal working environment to ensure work is conducted effectively throughout the project life cycle 2. Established links are maintained to align project objectives with organisation objectives throughout the project life cycle 3. Where necessary, higher authority assistance is sought to resolve conflicts between achievement of project objectives and accommodation of requirements of other levels of management within the organisation
3. Implement project activities throughout life cycle	<ol style="list-style-type: none"> 1. Agreed project phases, approval points and review points are implemented to accommodate all project management functions requirements 2. Progress is reported in relation to established project baselines to provide a measure of performance throughout all phases of the project life cycle 3. Established finalisation plans, procedures and activities are implemented to ensure final outcomes of project phases and of the overall project to meet agreed project objectives 4. Integration management issues and recommended improvements are identified, documented and passed on to higher project authority for application in future projects

UNIT	BSX154L501 Guide application of project integrative processes
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE

Project objectives	Achievable project objectives may be determined, within the constraints of performance, time, cost, quality, resources and skill, from the requirements of: the client; the supplier/contractor; end-user(s); higher project authorities
Project Plan	The project plan may be a single document or a covering document that integrates the requirements of the nine functions of project management using appropriate formats and procedures. Baselines may include: conceptual baseline; start-up baseline; implementation baseline
Internal environment	The internal environment may include: physical location of project; layout of project personnel and equipment; personal working conditions; team dynamics; identity and differentiation of the project within the larger environment
External environment	The external environment may include: the parent organisation, enterprise, industry; employee representative groups, e.g. unions, professional associations, lobby groups; political, social and societal influences; public and media interest; the physical environment, e.g. geography, ecology, sensitivity; external stakeholder expectations
Levels of management	Levels of management may include: corporate/ enterprise; business unit; program/ project; operations/ technical. The project may be affected by conflicting objectives and constraints within and between these levels of management which may vary over time
Finalisation activities	Finalisation activities may include: transition of responsibility/ownership of project deliverables/products; transfer of assets to the client or originating owner; warranty requirements; project evaluation; final audit/reconciliation; settling of financial liabilities; finalisation of account codes and other financial documentation; forwarding finalisation report to higher project authority
Integration management	Integration management issues and recommended improvements may include evaluation of the effectiveness of established success and failure criteria and suggestions for improvement. Lessons learnt may be reflected in changes to knowledge, training programs, data records and process instructions

EVIDENCE GUIDE	
----------------	--

Critical aspects of evidence	Assessment must confirm the ability to guide the overall project scope in the context of schedules, budgets, risk and contracts towards establishing agreed baselines for supplier/client requirements.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT

BSX154L501 Guide application of project integrative processes**Underpinning skills and knowledge****Underpinning knowledge**

- The project process, the project life-cycle and the relationship between project phases
- Planning and control procedures, resource management and risk management
- A range of suitable methodologies, techniques and tools available to project managers
- The application of leadership and management within a project environment
- Internal and external environment factors that may affect the project

Underpinning skills

- Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when integrating the nine functions of project management
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when developing the project plan, based on requirements of project sub-plans
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when identifying the requirements of all project management functions.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when the project plan is developed, based on requirements of project sub-plans
- Questioning and active listening skills, for example when coordinating internal and external environments

Resources

Assessment of this competency requires access to testing material based on hypothetical situations which cover the defined elements. Peers and supervisors for obtaining information on the extent and quality of the contribution made. Substantiating evidence may be gained through reviewing: records of evaluation and consultative processes to determine achievable project objectives; project plans and sub-plans covering the nine functions of project management; demonstration of processes for linking and co-ordination of project control mechanisms; records of evaluation of impact of organisation and other environment on project objectives; records of implementation of project phases and milestones; records of measurement and reporting of progress in relation to established baselines; finalisation plans; lists of integration management issues and recommended improvements

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L502 Guide application of scope management
-------------	---

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	The scope of a project comprises a combination of the end products of the project and the work required producing them. Scope management involves the initial justification of the project and initial project start-up, as well as the ongoing definition of deliverables, objectives and constraints. Project scope forms the foundation of the project plan and the basis from which other related plans are developed and the focus of their integration.
--------------------	---

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Conduct project authorisation activities	1. Project authorisation is confirmed with higher authority as the basis for future project management activity and commitment of resources and effort
2. Conduct project scope definition activities	1. Project objectives, deliverables, constraints and principal work activities are identified, with guidance of higher project authorities as the basis for agreement between the project team and the client 2. Designated measurable project benefits and outcomes are established to enable quantified evaluation of project performance 3. Scope management plans are developed and implemented to ensure clarity of understanding and ongoing management of project scope
3. Guide application of scope controls	1. Agreed scope management procedures and processes are implemented to form the basis of ongoing scope management 2. The impact of scope changes is managed within established time, cost and quality constraints to meet project objectives 3. Progress is reviewed and results recorded to assess the effectiveness of scope management procedures 4. Scope management issues and recommended improvements are identified, documented and passed on to higher project authority for application in future projects

UNIT	BSX154L502 Guide application of scope management
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE
Project life cycle	The project life cycle starts at the time that a project is conceived and completes when the desired outcomes have been achieved.
Project Authorisation	Project authorisation may already have been decided before involvement of the individual, or it may be required at a number of critical review points throughout the project. It may be in the form of a scope statement which briefly explains why the project has been formed, what it hopes to achieve and how success will be measured. This can be the problem and solution statements
Project Scope	Scope may be comprehensively defined at the beginning of the project, or it may be progressively refined as the accuracy of information improves and understanding of the requirement is clarified. Scope may be expressed in a scope statement covering any measurable or observable elements, which would demonstrate that the project purpose has been met.
Documentation and Reporting Systems	Documentation and reporting systems will be determine initially by the Project Manager. Documentation and reporting systems for the project product will be determined during the planning process
Scope definition	Scope definition may be expressed by designated, clearly defined boundaries, such as: product breakdown structure (a cascade of products, sub-products, assemblies and components); organisation breakdown structure (a cascade of resource types, skill types or activities), work breakdown structure (a cascade of the products and work activities), and/or some other form which comprehensively defines products and activities
Scope measurement	Scope measurement factors may include: percentage operating or overhead cost reduction; quantified performance or efficiency increase; quantified revenue or market share increase; other means of measurement
Project Deliverables	Project deliverables may include all products and services defined within the project scope.
Scope management	Scope management may include: progressive refinement of scope throughout project life cycle; identifying and reporting scope creep, i.e. incremental increases to scope to accommodate wishes rather than needs e.g. “nice to have”; identifying factors which influence changes to scope; determining that a scope change has occurred or is about to occur; seeking authorisation for changes to project scope; implementing agreed scope changes; monitoring and reporting the effect of scope changes on other areas and on achievement of project objectives
Change control procedures	Change control procedures may be required for: major elements of the project liable to change, e.g. design, engineering, finance; project documentation, including plans, schedules, statements, directives, guidelines and instructions; formal agreements, e.g. contracts, sub-contracts, memoranda of understanding

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to guide the initial justification of the project and initial project start-up, as well as the ongoing definition of deliverables, objectives and constraints.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT	BSX154L502 Guide application of scope management
-------------	---

Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> Organisational processes leading to project authorisation, start-up and designation of project manager The place of scope management in the context of the project life cycle The need for scope definition during project start-up and ongoing during the project life cycle Methods to define products and activities, e.g. work, organisation and product breakdown structures The components of a scope statement The practice of change control 	<p>Underpinning skills</p> <ul style="list-style-type: none"> Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when designating measurable project benefits and outcomes Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when scope management plans are developed Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when project objectives, deliverables, constraints and principal work activities are identified. Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when project objectives, deliverables, constraints and principal work activities are identified Questioning and active listening skills, for example when progress is reviewed and results recorded to assess the effectiveness of scope management procedures
Resources	<p>Assessment of this competency requires access to testing material based on hypothetical situations which cover the defined elements. Peers and supervisors for obtaining information on the extent and quality of the contribution made. Project scope documentation, including plans, schedules, statements, directives, guidelines and instructions; work breakdown, product breakdown and organisation breakdown structures; other scope definition documents; change requests/change orders; records of control of scope changes; records of scope lessons learnt</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p>	
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills</p>	

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p>						
<p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	2	2

UNIT	BSX154L503 Guide application of time management
-------------	--

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Management of project time relates to the activities associated with development, analysis and control of project schedules. Meeting project objectives within the identified time frame is a critical factor in determining project success along with capability, cost and quality
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine project schedule	<ol style="list-style-type: none"> 1. The duration and effort, sequence and dependencies of tasks are determined, from the output of scope definition, with input from stakeholders and guidance of higher project authorities as the basis for the project schedule 2. Established time management methods, techniques and tools are selected and used to determine preferred schedule, time management plans, resource allocation and financial requirements 3. Agreement to the schedule is obtained from higher project authority and communicated to stakeholders to provide the basis for measurement of progress
2. Implement project schedule	<ol style="list-style-type: none"> 1. Mechanisms are implemented and used to measure, record and report progress of activities in relation to the agreed schedule and plans 2. Ongoing analysis of options is conducted to identify variances and forecast the impact of changes on the schedule 3. Progress is reviewed throughout the project life cycle and agreed schedule changes are implemented to ensure consistency with changing scope, objectives and constraints related to time and resource availability 4. Responses to perceived, potential or actual schedule changes are developed , agreed by higher project authority, and implemented to maintain project objectives
3. Assess time management outcomes	<ol style="list-style-type: none"> 1. Project outcomes are reviewed to determine the effectiveness of time management activities 2. Time management issues and recommended improvements are identified, documented and passed on to higher project authority for application in future projects

UNIT	BSX154L503 Guide application of time management
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE
Time management activities	Time management activities may: be done independently within broad guidance or by taking the lead of a team; involve consultation with other project members, teams and internal stakeholders; involve the selection, use and supervision of appropriate time management methods, tools and techniques; be conducted routinely or as changing circumstances dictate; take into account internal organisational change and external environmental change
Information sources	Information to be drawn on may include: organisation guidelines and instructions; the project management body of knowledge; designated legislation and conventions affecting project management practice
Tools and techniques	Time management tools and techniques may involve: use of personal experience and/or subject matter experts, conducting or supervising qualitative and/or quantitative time analysis, such as schedule simulation, decision; analysis, contingency planning, alternative strategy development; using specialist time analysis tools to assist in the decision making process
Communication advice	Other project managers, the program manager, section heads and/or specialists within the organisation, may provide communication advice and assistance. Liaison with the client organisation and external authorities would normally be within agreed authorisation and reporting requirements
Records	Records may take the form of: lists of variances and forecasts of potential schedule events; Gantt, PERT and other scheduling charts; diaries, incident logs, occurrence reports and other such records; records of analysis, evaluation of options, recommended and approved courses of action; project and/or organisation files and records
Processes	Processes may include: setting key milestones; measurement of actual progress against planned milestones; recording and reporting of major variance; implementation of schedule control trigger mechanisms; communication with stakeholders, dispute resolution, and modification procedures
Time management	Time management plans may include: project schedule and sub-schedules, important milestones, designated schedule management strategies and actions, standardised formal arrangements, responsibility assignment, contingency plans and assigned schedule management responsibilities.

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to guide procedures associated with development, analysis and control of project schedules. Meeting project objectives within the identified time frame
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT

BSX154L503 Guide application of time management

Underpinning skills and knowledge

Underpinning knowledge

- The need to link time, cost and resources to the project schedule
- Responsibilities for time management
- Development of project schedules
- Use of the schedule as a control mechanism
- The place of time management in the context of the project life cycle and other project management functions
- Appropriate time management methodologies, their capabilities, limitations, application and outcomes

Underpinning skills

- Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when the duration and effort, sequence and dependencies of tasks are determined
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when agreement to the schedule is obtained from higher project authority and communicated to stakeholders
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when the progress is reviewed throughout the project life cycle and agreed schedule changes are implemented to ensure consistency with changing scope, objectives and constraints related to time and resource availability
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when the project outcomes are reviewed to determine the effectiveness of time management activities
- Questioning and active listening skills, for example when determining the project schedule

Resources

Assessment of this competency requires access to testing material based on hypothetical situations which cover the defined elements. Peers and supervisors for obtaining information on the extent and quality of the contribution made. Substantiating evidence may be gained by reviewing: project work breakdown structure; key activity schedule; application of precedence and dependency principles to task definition; project schedule; regular schedule reports to stakeholders and higher authority; application of monitoring, review and reporting mechanisms; application of actual progress against planned progress; records of recommendations for and corrective actions taken against variances in the project schedule; records of lessons learnt

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	3	2	2	2	2

UNIT	BSX154L504 Guide application of cost management
FIELD	Project Management
DESCRIPTION	Cost management includes the processes required to identify, analyse and refine project costs to produce a budget and is used as the principal mechanism to control project cost. Cost management is a factor critical to the success of the project, along with capability, time and quality
RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
ELEMENT	PERFORMANCE CRITERIA
1. Determine project costs	<ol style="list-style-type: none"> 1. Resource requirements for individual tasks are determined, with input from stakeholders and guidance of higher project authorities, to provide a basis for attributing expenditure 2. Project costs are estimated to enable budgets to be developed and agreed cost management processes implemented at an appropriate level throughout the project life cycle 3. Cost management plans are developed and implemented to ensure clarity of understanding and ongoing management of project finances
2. Monitor and control project costs	<ol style="list-style-type: none"> 1. Agreed financial management procedures and processes are implemented to monitor actual expenditure and to control costs 2. Cost analysis methods and tools are selected and used to identify cost variations, evaluate options and recommend actions to higher project authority 3. Agreed actions are implemented, monitored and modified to maintain financial and overall project objectives throughout the project life cycle
3. Conduct financial completion activities	<ol style="list-style-type: none"> 1. Activities are conducted to signify financial completion activities 2. Project outcomes are reviewed to determine the effectiveness of cost management processes and procedures 3. Cost management issues and recommended improvements are identified, documented and passed on to higher project authority for application in future projects 4. Assumptions made during cost estimates are documented and passed on to higher project authority

UNIT	BSX154L504 Guide application of cost management
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Cost management	Cost management activities may: be done independently within broad guidance or by taking the lead of a team; involve consultation with other project members, teams and internal stakeholders; involve the selection, use and supervision of appropriate time management methods, tools and techniques; be conducted routinely or as changing circumstances dictate; take into account internal organisational change and external environmental change
Information	Information to be drawn on may include: organisation guidelines and instructions; the project management body of knowledge; designated legislation and conventions affecting project management practice
Communication Advice	Other project managers, the program manager, section heads and/or specialists within the organisation, may provide communication advice and assistance. Liaison with the client organisation and external authorities would normally be within agreed authorisation and reporting requirements.
Financial management	Financial management processes and procedures may include: approval processes; financial authorisations/delegations; invoice procedures; communication and reporting
Accuracy of cost estimates	Accuracy of cost estimates may take account of: the stage of the project life cycle; the availability of information at the time; contingency to allow for identified risks and uncertainty; organisational requirements, e.g. overhead and profit margin
Project reviews	Project reviews may be conducted on completion of: agreed major milestones, e.g. phases, sub-contracts; delivery of major deliverables; change of key personnel; finalisation of project and other agreed milestones
Records	Records may take the form of: lists of potential costs; invoice and payment summaries; budgets, commitment and expenditure; cost management plans; reports to higher authority; recommended and approved courses of action; project and/or organisation files and records; cost management lessons learnt.

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to guide the processes required to identify, analyse and refine project costs to produce a budget that is used as the principal mechanism to control project cost
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT	BSX154L504 Guide application of cost management
-------------	--

Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> The need to link time, cost and resources to the project framework Acceptance of responsibilities for cost management Development of project budgets and expenditure forecasts Use of the budgets and expenditure forecasts as control mechanisms The place of cost management in the context of the project life cycle and other project management functions Appropriate cost management methodologies, their capabilities, limitations, application and outcomes 	Underpinning skills	<ul style="list-style-type: none"> Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when resource requirements for individual tasks are determined and project costs are estimated Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when cost management plans are developed and agreed financial management procedures and processes are documented Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when project outcomes are reviewed to determine the effectiveness of cost management processes and procedures Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when cost management issues and recommended improvements are identified Questioning and active listening skills, for example when cost management issues and recommended improvements are identified
Resources	<p>Assessment of this competency requires access to testing material based on hypothetical situations which cover the defined elements. Peers and supervisors for obtaining information on the extent and quality of the contribution made. Substantiating evidence may be gained from reviewing: cost estimates; cost management plans and strategies; cost breakdown structures; project budgets and expenditure forecasts; financial transition plans; records of project finalisation activities and disposal of project assets; project finalisation reports; records of cost management lessons learnt</p>		
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p>		
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills</p>		

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p>						
<p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	3	2	2

UNIT	BSX154L505 Guide application of quality management
-------------	---

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Quality is a factor critical to success of the project along with capability cost and time. Project quality management comprises the activities required to optimise the quality policy and the processes of the project. Quality management applies objective standards and processes to achieve the largely subjective goal of customer satisfaction through the continuous application of quality planning, quality control, quality assurance and continuous improvement throughout the project life-cycle
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine quality requirements	<ol style="list-style-type: none"> 1. Quality objectives, standards and levels are determined, with input from stakeholders and guidance of higher project authorities, to establish the basis for quality outcomes 2. Established quality management methods, techniques and tools are selected and used to determine preferred mix of quality, capability, cost and time 3. Quality criteria are identified, agreed with higher project authority and are communicated to stakeholders to ensure clarity of understanding and achievement of quality and overall project objectives 4. Agreed quality requirements are included in project plans and implemented as basis for performance measurement
2. Implement quality assurance	<ol style="list-style-type: none"> 1. Results of project activities and product performance are measured and documented throughout the project life cycle to determine compliance with agreed quality standards 2. Causes of unsatisfactory results are identified, in consultation with the client, and appropriate actions are recommended to higher project authority to enable continuous improvement in quality outcomes 3. Inspections of quality processes and quality control results are conducted to determine compliance of quality standards to overall quality objectives 4. A quality management system is maintained to enable effective recording and communication of quality issues and outcomes to higher project authority and stakeholders
3. Implement project quality improvements	<ol style="list-style-type: none"> 1. Processes are reviewed and agreed are changes implemented continually throughout the project life cycle to ensure continuous improvement of quality 2. Project outcomes are reviewed against performance criteria to determine the effectiveness of quality management processes and procedures 3. Lessons learnt and recommended improvements are identified, documented and passed on to higher project authority for application in future projects

UNIT	BSX154L505 Guide application of quality management
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE

Quality management activities	Quality management activities may: be done independently within broad guidance or by taking the lead of a team; involve consultation with other project members, teams and internal stakeholders; involve the selection, use and supervision of appropriate quality management methods, tools and techniques; be conducted routinely or as changing circumstances dictate; take into account internal organisational change and external environmental change
Information sources	Information to be drawn on may include: organisation guidelines and instructions; the project management body of knowledge; Australian and international quality standards; designated legislation and conventions affecting quality management practice
Communication advice	Other project managers, the program manager, section heads and/or specialists within the organisation, may provide communication advice and assistance. Liaison with the client organisation and external authorities would normally be within agreed authorisation and reporting requirements.
Quality management systems	Quality Management Systems may be based on ISO 9000 Series or they may be specifically designated by the organisation.
Quality Management Plans	Quality Management Plans may include established processes, authorisations and responsibilities for quality control, quality assurance, and continuous improvement. They may also contain endorsed quality policies, critical success factors, measurement criteria, QM documentation requirements, and inspection, audit, report and review procedures.
Quality objectives	Quality objectives may be determined in consultation with the client and other stakeholders, as well as advice from a higher project authority. This process may require prioritisation and trade-off between cost, schedule, performance and quality which may impact upon customer satisfaction.
Quality Standards	Quality standards may be selected or designated by higher project authority from: ISO 9000 Series guidelines; government regulations (e.g. Trade Practices Acts, Environment Protection Acts); industry standards, regulations and work practices; organisation and project standards; client organisation standards
Quality assurance	Quality assurance activities may range from monitoring conformance with specifications to recommending ways to eliminate causes of unsatisfactory performance of products or processes.
Quality control	Quality control activities may include inspections and audits in compliance with quality control guidelines. Quality control activities may involve the monitoring of regular inspections by internal or external agents.
Quality improvement	Quality improvement may be achieved by formal practices such as total quality management or continuous improvement or by less formal processes which improve both the product quality and processes of the project, e.g. client surveys to determine client satisfaction with project team performance
Quality management	Quality management tools may be used to chart processes, group work activities, rank candidates, define control limits and/or indicate variation. Quality tools may include brainstorming, benefit/cost analysis, flowcharts, benchmarking, histograms, parent charts, scattergrams, run charts, control charts.

EVIDENCE GUIDE	
----------------	--

Critical aspects of evidence	Assessment must confirm the ability to guide the activities required to optimise the quality policy and the processes of the project.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT

BSX154L505 Guide application of quality management

Underpinning skills and knowledge

Underpinning knowledge

- The principles of quality management and their application
- Acceptance of responsibilities for quality management
- Use of quality management systems and standards
- The place of quality management in the context of the project life cycle
- Appropriate quality management methodologies; their capabilities, limitations, applicability and contribution to project outcomes

Underpinning skills

- Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when quality criteria are identified
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when agreed quality requirements are included in project plans and implemented as basis for performance measurement
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when a quality management system is maintained to enable effective recording and communication of quality issues and outcomes.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when lessons learnt and recommended improvements are identified
- Questioning and active listening skills, for example when project outcomes are reviewed against performance criteria to determine the effectiveness of quality management processes and procedures

Resources

Assessment of this competency requires access to testing material based on hypothetical situations which cover the defined elements. Peers and supervisors for obtaining information on the extent and quality of the contribution made. Substantiating evidence may be gained by reviewing: lists of quality objectives, standards, levels and measurement criteria; records of inspections, recommended rectification actions and quality outcomes; management of quality management system and quality management plans; application of quality control, quality assurance and continuous improvement processes; records of quality reviews; lists of lessons learnt and recommended improvements

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	2	2	3	2

UNIT	BSX154L506 Guide application of human resources management
FIELD	Project Management
DESCRIPTION	Project human resource management (HRM) involves the development of individuals and sub-teams into a cohesive project unit with the common purpose of meeting project objectives. Human resource management includes determining the resources required to manage project tasks, both within the core project team and the broader organisational matrix. Staff recruitment, selection, training and development is conducted to accommodate change throughout the project life-cycle
RELATED .COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
ELEMENT	PERFORMANCE CRITERIA
1. Implement HRM planning activities	<ol style="list-style-type: none"> 1. Resource requirements for individual tasks are determined, with input from stakeholders and guidance from higher project authorities, to provide a basis for determining project staffing levels and competencies 2. Project organisation and structure designated by higher authority are established to align individual and group competencies with project tasks 3. Staff are allocated to and within the project or reallocated within the organisation as directed by higher project authority to meet competency requirements throughout the project life cycle 4. HRM methods, techniques and tools are used to implement HRM procedures and HRM plans to ensure clarity of understanding and ongoing human resource management
2. Implement staff training and development	<ol style="list-style-type: none"> 1. Designated staff responsibilities, authority and personal performance measurement criteria are communicated to ensure clarity of understanding of the work and to provide a basis for ongoing assessment 2. Ongoing development and training of project team members is identified, planned, approved by higher authority and implemented to achieve HRM and overall project objectives 3. Individuals' performance is measured against agreed criteria and actions are initiated to overcome shortfalls in performance and encourage career progression
3. Guide the project team	<ol style="list-style-type: none"> 1. Processes to promote continuous improvement of staff are implemented and actions taken to improve staff and overall project effectiveness 2. Internal and external influences on individual and team performance and morale are monitored and reported to higher project authority if necessary for remedial action 3. Established procedures for interpersonal communication, counselling and conflict resolution are implemented to maintain a positive working environment 4. Inter-project and intra-project conflict is identified and managed to minimise impact on achievement of project objectives 5. HRM management issues and recommended improvements are identified, documented and passed on to higher project authority for application in future projects

UNIT	BSX154L506 Guide application of human resources management
------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE
Organisation of project	Projects may be independent, or based on a matrix organisation, depending on: organisational policy; higher authority direction; personnel availability; recruitment lag times; changing requirements at different stages in project life cycle
Project organisation and staffing	Project organisation and staffing may be affected by established organisational responses to external influences such as: anti-discrimination; equal employment opportunity; affirmative action; occupational health and safety; work place bargaining; accepted work practices
Project staff	Project staff may come from: within the organisation; loan staff from other projects; consultants; external authorities, eg auditors, quality assurance
HRM methods, techniques and tools	HRM methods, techniques and tools may include established organisation responses to: individual and group competency identification and development; HRM forecasts, staffing plans and job descriptions; staff recruitment and reallocation; performance monitoring, assessment and reporting; conflict resolution.

EVIDENCE GUIDE					
Critical aspects of evidence	Assessment must confirm the ability to guide the determination of the resources required to manage project tasks, both within the core project team and the broader organisational matrix.				
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.				
Underpinning skills and knowledge	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Underpinning knowledge</th> <th style="text-align: left; padding: 5px;">Underpinning skills</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top; padding: 5px;"> <ul style="list-style-type: none"> • The importance of human resource management in the project management environment • Established organisational policies, standards and methods required to achieve HRM outcomes • The use of established HRM selection, assignment, training, performance evaluation and motivation tools • The conflict and stress issues associated with individuals tasked with project management, especially within a human resource matrix management environment • HRM outcomes, critical success and failure criteria and HRM performance measures • The application of interpersonal skills • Assessment of interpersonal strengths and weaknesses • The differences in work content, processes and risk that affect HRM requirements in the various phases of the project life cycle • Staff recruitment methodologies and approaches employed by the organisation and the HR sector generally • HRM tools are applied to a range of situations • HR performance measurement tools and methodologies are applied to a range of situations </td> <td style="vertical-align: top; padding: 5px;"> <ul style="list-style-type: none"> • Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when staff are allocated to and within the project or reallocated within the organisation • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when designated staff responsibilities, authority and personal performance measurement criteria are communicated to ensure clarity of understanding of the work • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when inter-project and intra-project conflict is identified and managed to minimise impact on achievement of project objectives. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when HRM management issues and recommended improvements are identified </td> </tr> </tbody> </table>	Underpinning knowledge	Underpinning skills	<ul style="list-style-type: none"> • The importance of human resource management in the project management environment • Established organisational policies, standards and methods required to achieve HRM outcomes • The use of established HRM selection, assignment, training, performance evaluation and motivation tools • The conflict and stress issues associated with individuals tasked with project management, especially within a human resource matrix management environment • HRM outcomes, critical success and failure criteria and HRM performance measures • The application of interpersonal skills • Assessment of interpersonal strengths and weaknesses • The differences in work content, processes and risk that affect HRM requirements in the various phases of the project life cycle • Staff recruitment methodologies and approaches employed by the organisation and the HR sector generally • HRM tools are applied to a range of situations • HR performance measurement tools and methodologies are applied to a range of situations 	<ul style="list-style-type: none"> • Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when staff are allocated to and within the project or reallocated within the organisation • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when designated staff responsibilities, authority and personal performance measurement criteria are communicated to ensure clarity of understanding of the work • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when inter-project and intra-project conflict is identified and managed to minimise impact on achievement of project objectives. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when HRM management issues and recommended improvements are identified
Underpinning knowledge	Underpinning skills				
<ul style="list-style-type: none"> • The importance of human resource management in the project management environment • Established organisational policies, standards and methods required to achieve HRM outcomes • The use of established HRM selection, assignment, training, performance evaluation and motivation tools • The conflict and stress issues associated with individuals tasked with project management, especially within a human resource matrix management environment • HRM outcomes, critical success and failure criteria and HRM performance measures • The application of interpersonal skills • Assessment of interpersonal strengths and weaknesses • The differences in work content, processes and risk that affect HRM requirements in the various phases of the project life cycle • Staff recruitment methodologies and approaches employed by the organisation and the HR sector generally • HRM tools are applied to a range of situations • HR performance measurement tools and methodologies are applied to a range of situations 	<ul style="list-style-type: none"> • Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when staff are allocated to and within the project or reallocated within the organisation • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when designated staff responsibilities, authority and personal performance measurement criteria are communicated to ensure clarity of understanding of the work • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when inter-project and intra-project conflict is identified and managed to minimise impact on achievement of project objectives. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when HRM management issues and recommended improvements are identified 				

UNIT	BSX154L506 Guide application of human resources management
-------------	---

Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made. Substantiating evidence may be: current and future requirements for competency within the project team; staffing levels and competencies related to task; job descriptions including measures of performance; project organisation charts; staff recruitment and selection criteria; team and individual responsibilities, levels of authority and performance assessment criteria; responsibility assignment matrix; HRM plans and procedures; records of internal and external influences on HRM performance; HRM lessons learnt
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	3	2	2	2

UNIT	BSX154L507 Guide application of communications management
-------------	--

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Project communications management provides a critical link between people, ideas and information at all stages in the project life-cycle. Project communications management ensures the timely and appropriate generation, collection, dissemination, storage and disposition of project information via formal structures and processes to aid in decision making, and the control of informal communication networks to aid the achievement of project objectives.
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Implement communications planning processes	<ol style="list-style-type: none"> 1. Information requirements are identified, analysed and documented, with input from stakeholders and guidance of higher project 2. Agreed communications management plans are implemented within established communications networks to ensure clarity of understanding and achievement of project objectives throughout the project life cycle 3. Designated project management information system, structure and procedures are implemented and maintained to ensure the quality, validity, timeliness and integrity of information and communication
2. Guide application of information management	<ol style="list-style-type: none"> 1. The generation, gathering, storage, retrieval, analysis and dissemination of information by project staff and stakeholders is managed within established systems and procedures to aid decision making processes throughout the project life cycle 2. Designated information validation processes are monitored and controlled, and agreed modifications are implemented to optimise quality and accuracy of data
3. Implement project reporting processes	<ol style="list-style-type: none"> 1. Agreed communication networks between project, client and other stakeholders are implemented and maintained to ensure effective communications at appropriate levels throughout the project life cycle 2. Communication and information management systems problems are identified, reported to higher project authorities, and agreed remedial actions are implemented to ensure project objectives are met 3. Customer relationships are maintained within established guidelines to ensure clarity of understanding of objectives and to reduce conflict throughout the project life cycle
4. Assess communications management outcomes	<ol style="list-style-type: none"> 1. Finalisation activities are conducted to ensure agreed ownership of and responsibility for information is achieved 2. Project outcomes are reviewed to determine the effectiveness of management information and communications processes and procedures 3. Lessons learnt and recommended improvements are identified, documented and passed on to higher project authority for application in future projects

UNIT	BSX154L507 Guide application of communications management
-------------	--

RANGE OF VARIABLES

VARIABLE	SCOPE
Communications management activities	Communications management activities may: be done independently within broad guidance or by taking the lead of a team; involve consultation with other project members, teams and internal stakeholders; involve the selection, use and supervision of appropriate communications management methods and tools; be conducted routinely or as changing circumstances dictate; take into account internal organisational change and external environmental change
Communication networks	Formal and informal communication networks may be maintained within the project, the organisation, with the client organisation and with end users, within the limits of authorisation of personnel concerned
Project Management Information Systems (PMIS)	Project Management Information Systems (PMIS) range from complex computer-based systems to simple manual systems. An organisation designated PMIS may need to be modified to cater for unique project requirements, such as: project complexity and duration; available technology; financial constraints; user capabilities

EVIDENCE GUIDE

Critical aspects of evidence	Assessment must confirm the ability to guide the timely and appropriate generation, collection, dissemination, storage and disposition of project information via formal structures and processes to aid in decision making, and the control of informal communication networks to aid the achievement of project objectives.	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.	
Underpinning skills and knowledge	Underpinning knowledge <ul style="list-style-type: none"> • The principles of communications management and their application • Acceptance of responsibilities for communications management • Maintenance of project management information systems and communications networks • Drafting, vetting, approving, obtaining endorsement and forwarding of reports to higher authority • The place of communications management in the context of the project life cycle and other project management functions • Appropriate communication management technologies; their capabilities, limitations, applicability and contribution to project outcomes 	Underpinning skills <ul style="list-style-type: none"> • Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when communication and information management systems problems are identified • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when implementing the communications planning process • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when agreed communication networks between project, client and other stakeholders are implemented and maintained • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when project outcomes are reviewed to determine the effectiveness of management information and communications processes and procedures

UNIT	BSX154L507 Guide application of communications management
------	--

Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made. Substantiating evidence may be: communications management plans; PMIS structure and procedures; progress reports; records of collection, validation, storage, retrieval, analysis and/or dissemination of information; records of meetings; post-validation process modifications; communications networks; records of communications problems and solutions
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	2	2	2	2	2

UNIT	BSX154L508 Guide application of risk management
FIELD	Project Management
DESCRIPTION	Risks are factors which might adversely affect project outcomes. Risk management includes the processes concerned with identifying, analysing and responding to uncertainty. It also includes maximising the results of positive events and minimising the consequences of adverse events. The risk management process is completed through review of the plan and recording of lessons learnt.
RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
ELEMENT	PERFORMANCE CRITERIA
1. Determine project risk events	<ol style="list-style-type: none"> 1. Potential, perceived and actual risk events are identified, documented and analysed, in consultation with appropriate stakeholders and guidance of higher project authorities, as the basis for risk management planning 2. Established risk management techniques and tools are used to analyse risk events, assess options and recommend preferred risk approaches to higher project authority for approval 3. Plans are developed, agreed with stakeholders and are communicated to ensure clarity of understanding and ongoing management of risk factors 4. Designated risk management processes and procedures are implemented to enable effective management and communication of risk events, responses and results to higher project authorities and other stakeholders
2. Monitor and control project risk	<ol style="list-style-type: none"> 1. Project is managed in accordance with established project and risk management plans to ensure common approach to achievement of objectives 2. Progress is monitored against project plans to identify variances and recommend responses to higher project authority for remedial action 3. Agreed risk responses are implemented and plans modified to reflect changing project objectives in an environment of uncertainty
3. Assess risk management outcomes	<ol style="list-style-type: none"> 1. Project outcomes are reviewed to determine effectiveness of risk management processes and procedures 2. Risk issues and recommended improvements are identified, documented and passed on to higher project authority for application in future projects

UNIT	BSX154L508 Guide application of risk management
-------------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Risk management activities	Risk management activities may: be done independently within broad guidance or by taking the lead of a team; involve consultation with other project members, teams and internal stakeholders; involve the selection, use and supervision of appropriate risk management methods, tools and techniques; be conducted routinely or as changing circumstances dictate
Updates and modification	Updates and modification may be conducted: independently or with higher project authority endorsement if necessary; regularly throughout the project life cycle; in consultation with project team members, section heads, project manager and stakeholders; taking into account internal organisational change and external environmental change
Risk management tools and techniques	Risk management tools and techniques may involve: calling upon personal experience and subject matter experts; conducting or supervising qualitative and/or quantitative risk analysis, such as schedule simulation, decision; analysis, contingency planning, alternative strategy development; using specialist risk analysis tools to assist in the decision making process
Processes	Processes may include: setting key milestones at significant points during the project and at completion; measurement of actual progress against planned milestones; recording and reporting of major variance; implementation of risk control trigger mechanisms; communication with stakeholders, dispute resolution, and modification procedures

EVIDENCE GUIDE					
Critical aspects of evidence	Assessment must confirm the ability to guide the processes concerned with identifying, analysing and responding to uncertainty. It also includes maximising the results of positive events and minimising the consequences of adverse events.				
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.				
Underpinning skills and knowledge	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: left;">Underpinning knowledge</th> <th style="width: 50%; text-align: left;">Underpinning skills</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Uncertainty and the means of measurement • Personal attitudes to uncertainty and risk, and how they might impact on the project's approach to risk management • The place of risk management in the context of the project life cycle • Appropriate risk management methodologies, their capabilities, limitations, applicability and outcomes </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when potential, perceived and actual risk events are identified, documented and analysed • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when plans are developed, agreed with stakeholders and are communicated to ensure clarity of understanding and ongoing management of risk factors • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when agreed risk responses are implemented and plans modified to reflect changing project objectives in an environment of uncertainty. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when project outcomes are reviewed to determine effectiveness of risk management processes and procedures • Research skills for identifying, analysing and evaluating with substantial depth best practices in risk assessment, for example when potential, perceived and actual risk events are identified, documented and analysed. </td> </tr> </tbody> </table>	Underpinning knowledge	Underpinning skills	<ul style="list-style-type: none"> • Uncertainty and the means of measurement • Personal attitudes to uncertainty and risk, and how they might impact on the project's approach to risk management • The place of risk management in the context of the project life cycle • Appropriate risk management methodologies, their capabilities, limitations, applicability and outcomes 	<ul style="list-style-type: none"> • Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when potential, perceived and actual risk events are identified, documented and analysed • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when plans are developed, agreed with stakeholders and are communicated to ensure clarity of understanding and ongoing management of risk factors • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when agreed risk responses are implemented and plans modified to reflect changing project objectives in an environment of uncertainty. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when project outcomes are reviewed to determine effectiveness of risk management processes and procedures • Research skills for identifying, analysing and evaluating with substantial depth best practices in risk assessment, for example when potential, perceived and actual risk events are identified, documented and analysed.
Underpinning knowledge	Underpinning skills				
<ul style="list-style-type: none"> • Uncertainty and the means of measurement • Personal attitudes to uncertainty and risk, and how they might impact on the project's approach to risk management • The place of risk management in the context of the project life cycle • Appropriate risk management methodologies, their capabilities, limitations, applicability and outcomes 	<ul style="list-style-type: none"> • Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when potential, perceived and actual risk events are identified, documented and analysed • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when plans are developed, agreed with stakeholders and are communicated to ensure clarity of understanding and ongoing management of risk factors • Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when agreed risk responses are implemented and plans modified to reflect changing project objectives in an environment of uncertainty. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when project outcomes are reviewed to determine effectiveness of risk management processes and procedures • Research skills for identifying, analysing and evaluating with substantial depth best practices in risk assessment, for example when potential, perceived and actual risk events are identified, documented and analysed. 				

UNIT	BSX154L508 Guide application of risk management
-------------	--

Resources	Peers and supervisors for obtaining information on the extent and quality of the contribution made. Substantiating evidence may be: application of lessons learnt from previous project(s) in planning new project; lists of potential risk events; records of identification and prioritisation of risk events; risk management plans; reports of variance and recommendations for action; details of conduct of risk reappraisal; risk management lessons learnt
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	3	2	2	2	2

UNIT	BSX154L509 Guide application of procurement management
-------------	---

FIELD	Project management
--------------	---------------------------

DESCRIPTION	Project procurement involves the management of contracting activities from formation, such as product and contract definition, market analysis, through the tendering process up to contract formation, to contract performance, management and administration after contract award.
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Determine procurement requirements	<ol style="list-style-type: none"> 1. Procurement requirements are identified, with input from stakeholders and guidance of higher project authorities, as the basis for procurement planning and the contract 2. Agreed procurement management plans and strategies are implemented and maintained to ensure clarity of understanding between stakeholders and achievement of project objectives
2. Establish agreed procurement processes	<ol style="list-style-type: none"> 1. Information is obtained from established sources capable of fulfilling procurement requirements to determine the extent to which project objectives can be met 2. Established selection processes and selection criteria are implemented and communicated to stakeholders and prospective contractors to ensure fair competition 3. Approvals are obtained from higher project authority to enable formal discussions to be conducted
3. Conduct procurement process activities	<ol style="list-style-type: none"> 1. Agreed proposals are communicated to prospective contractors to ensure clarity of understanding of project objectives 2. Responses are evaluated and preferred contractors are selected in accordance with current legal requirements and agreed selection processes 3. Negotiations are conducted with preferred contractor, with guidance of higher project authority if necessary, to agree contract terms and conditions, establish common goals and minimise uncertainty
4. Implement contract	<ol style="list-style-type: none"> 1. Established procurement plans are implemented, and modified with higher project authority approval, to ensure common approach to achievement of objectives 2. Progress is reviewed and agreed changes are managed to ensure timely completion of tasks, resolution of conflicts and achievement of project objectives within the legal framework of the contract 3. Procurement management problems are identified, reported to higher project authorities, and agreed remedial actions are implemented to ensure project objectives are met
5. Manage contract finalisation procedures	<ol style="list-style-type: none"> 1. Finalisation activities are conducted to ensure contract deliverables meet contractual requirements 2. Project outcomes are reviewed to determine the effectiveness of procurement processes and procedures 3. Lessons learnt and recommended improvements are identified, documented and passed on to higher project authority for application in future projects

UNIT	BSX154L509 Guide application of procurement management
-------------	---

RANGE OF VARIABLES	
--------------------	--

VARIABLE	SCOPE
Procurement management activities	Procurement management activities may: be done independently within broad guidance or by taking the lead of a team; involve consultation with other project members, teams and internal stakeholders; involve the selection, use and supervision of appropriate procurement management methods, tools and techniques; be conducted routinely or as changing circumstances dictate; take into account internal organisational change and external environmental change
Updates and modification	Updates and modification may be conducted: independently or with higher project authority endorsement if necessary; regularly throughout the project life cycle; in consultation with project team members, section heads, project manager and stakeholders; taking into account internal organisational change and external environmental change
Contracts or formal arrangements	Contracts or formal arrangements would normally be designated by higher project authority, and may take the form of: a single contract; several contracts; memoranda of understanding; standard agreement; verbal agreements
Project procurement policy	Project procurement policy may be influenced by: government law, regulations and guidelines; industry standards and guidelines; organisation policy, practices and procedures; limiting factors within the project
Procurement records	Procurement records may take the form of: product specifications; procurement management plans; contract documentation; contractor selection criteria, processes and recommendations; contract negotiation documentation; contract change proposals and approvals; test and acceptance procedures and documentation; contract discharge and asset disposal registers
Procurement management plans	May define tasks and assign responsibilities for the development, management, administration, performance, test and acceptance and discharge procedures in accordance with endorsed organisational policy.

EVIDENCE GUIDE	
----------------	--

Critical aspects of evidence	Assessment must confirm the ability to guide contracting activities from formation, such as product and contract definition, market analysis, through the tendering process up to contract formation, to contract performance, management and administration after contract award
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT

BSX154L509 Guide application of procurement management**Underpinning skills and knowledge****Underpinning knowledge**

- The principles of procurement management and their application
- The principles of contracts and contractual legal requirements from the project management perspective
- The selection of appropriate formal arrangements and the legal implications of such agreements
- Procurement management processes and procedures

Underpinning skills

- Negotiation skills in relation to previously identified project outcomes, for example when negotiations are conducted with preferred contractor
- Problem solving skills for an undefined range of unpredictable problems involving participation in the development of strategic initiatives, for example when procurement management problems are identified
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when agreed proposals are communicated to prospective contractors to ensure clarity of understanding of project objectives
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature, for example when procurement requirements are identified, with input from stakeholders and guidance of higher project authorities.
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when lessons learnt and recommended improvements are identified

Resources

Peers and supervisors for obtaining information on the extent and quality of the contribution made. Substantiating evidence may be: product specifications; procurement management plans; contract documentation; records of evaluation and selection of preferred contractors; records of involvement in contract negotiations; progress measurement and conflict resolution process records; contract change procedures and documentation; records of test and acceptance procedures and documentation; records of contract discharge procedures and documentation; records of procurement lessons learnt and recommended improvements

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	3	2	2	2	2

UNIT	BSX154L601 Manage project integration
-------------	---

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Integration is the management of overall project scope in the context of schedules, budgets, risk and contracts towards establishing agreed baselines for supplier/client requirements. Integration involves the management of the other eight functions of project management, and making trade-offs among competing objectives and alternatives in order to meet or exceed project objectives throughout the project life cycle, taking into consideration the often conflicting influences of the internal and external environments
--------------------	---

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Manage integration of the scope, time, cost, quality, human resource, communications, risk, and procurement management functions of project management	<ol style="list-style-type: none"> 1. Project stakeholders are identified to determine the influence of others on achievement of project outcomes and project management 2. The requirements of all project management functions are analysed, rationalised and integrated, to determine agreed, achievable project objectives 3. Project sub-plans are reviewed, rationalised and integrated into a structured, cohesive project plan to form the basis for ongoing project management 4. Integrated project control mechanisms are derived from project plans to accommodate change throughout the project life cycle
2. Manage within the internal and external environment	<ol style="list-style-type: none"> 1. The internal project working environment is managed to ensure work is conducted effectively throughout the project life cycle environments 2. Links are established and are maintained to manage the alignment between project objectives and organisation objectives throughout the project life cycle 3. The impact of conflicting requirements of different levels of management within the organisation on individual areas or on the overall project, are managed to achieve project objectives, or if necessary to modify project objectives 4. The impact of external environmental influences on individual areas or the overall project, are managed to achieve project objectives, or if necessary, to modify project objectives
3. Manage project throughout life cycle	<ol style="list-style-type: none"> 1. All project management functions requirements are reviewed to establish project-wide phases, approval points, review points and other milestones 2. Project baselines are established and progress is reported in relation to the agreed baselines to provide a measure of performance throughout all phases of the project life cycle 3. Finalisation plans, procedures and activities are developed and managed to ensure final outcomes of project phases and of the overall project meet agreed project objectives 4. Integration management lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT	BSX154L601 Manage project integration
-------------	---

RANGE OF VARIABLES	
VARIABLE	SCOPE
Achievable project objectives	Achievable project objectives may be determined from the requirements of: the client, eg maximum value for money, or maximum performance at minimum cost; the supplier/contractor, eg minimum cost, minimum time, acceptable quality; end-user(s), eg maximum performance as well as optional extras, want it now; higher project authorities, eg reputation, retention of market share, buying into market within the constraints of performance, time, cost, quality, resources and skills
Lessons learnt	Lessons learnt may include both success and failure criteria and suggestions for improvement. Lessons learnt may be reflected in changes to knowledge, training programs, data records and process instructions
Finalisation activities	Finalisation activities may include: transition of responsibility/ownership of project deliverables/products; transfer of assets to the client or originating owner; warranty requirements; project evaluation; final audit/reconciliation; settling of financial liabilities; finalisation of account codes and other financial documentation; forwarding finalisation report to higher project authority
Levels of management	Levels of management may include: corporate/ enterprise; business unit; program/ project; operations/ technical The project may be affected by conflicting objectives and constraints within and between these levels of management which may vary over time
Internal environment	The internal environment may include: physical location of project within the organisation; layout of project personnel and equipment; personal working conditions (physical and emotional); team and interpersonal dynamics; identity and differentiation of the project within the larger environment
External environment	The external environment may include: the parent organisation, enterprise, industry; employee representative groups, eg unions, professional associations, lobby groups; political, social and societal influences; public and media interest; the physical environment, eg geography, ecology, sensitivity; external stakeholder expectations
Project plan	The project plan may be a single document or a covering document which rationalises and integrates the requirements of the nine functions of project management contained in other project sub-plans

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to manage the link and co-ordination of individual control mechanisms to provide cohesive project-wide control, ie the integration of quality, financial, resource management, information management, communication and other control mechanisms.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT	BSX154L601 Manage project integration
-------------	--

Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> The project process, the project life-cycle and the relationship between project phases Planning and control procedures, resource management and risk management A range of suitable methodologies, techniques and tools available to project managers The need for and application of leadership and management within a project environment Internal and external environment factors that may affect the project Detailed knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations of the particular project domain 	<p>Underpinning skills</p> <ul style="list-style-type: none"> Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when project stakeholders are identified to determine the influence of others on achievement of project outcomes and project management Leadership skills in relation to guidance for achieving outcomes and transferring and collecting information and gaining consensus on concepts, for example when managing within the internal and external environment Estimating skills for use across a range of unpredictable project contexts in relation to either varied or highly specific functions, for example when , for example when the project sub-plans are reviewed, rationalised and integrated into a structured, cohesive project plan to form the basis for ongoing project management Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when all project management functions requirements are reviewed to establish project-wide phases, approval points, review points and other milestones
Resources	<p>Assessment of this competency requires access to organisational documentation related to the candidates' project plan. Evidence may be gained through reviewing: records of evaluation and consultative processes to determine achievable project objectives, project plans and sub-plans covering the nine functions of project management, demonstration of processes for linking and co-ordination of project control mechanisms, records of evaluation of impact of organisation and other environment on project objectives, records of implementation of project phases and milestones, records of measurement and reporting of progress in relation to established baselines, finalisation plans, lists of integration management issues and recommended improvements.</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p>	
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills</p>	

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	3	3	2	2	2	2

UNIT	BSX154L602 Manage scope
-------------	-----------------------------------

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	The scope of a project comprises a combination of the end products of the project and the work required to produce them. Scope management involves the initial justification of the project and initial project start-up, as well as the ongoing definition of deliverables, objectives and constraints. Project scope forms the foundation of the project plan and the basis from which other related plans are developed and the focus of their integration.
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Manage project authorisation	<ol style="list-style-type: none"> 1. Needs are analysed, in consultation with client and other stakeholders if necessary, to determine justification for existence of project and for designation of project manager 2. Project authorisation is obtained from higher project authority as the basis for future project management activity and commitment of resources and effort
2. Define and plan project scope	<ol style="list-style-type: none"> 1. Project objectives, deliverables, constraints and principal work activities are defined and recommended as the basis for agreement between the project team and the client 2. Measurable project benefits and outcomes are determined and agreed to enable quantified evaluation of project performance 3. Scope definition, scope management strategies and plans are developed, agreed and communicated to ensure clarity of understanding and ongoing management of project scope
3. Manage project scope	<ol style="list-style-type: none"> 1. Change management system is established and maintained to form the basis of ongoing scope management 2. The impact of potential, perceived and actual scope changes is analysed and actions are taken to achieve or modify project objectives throughout the project life cycle 3. Project outcomes are compared against defined scope to determine and communicate achievement of project objectives 4. Scope management lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT	BSX154L602 Manage scope
-------------	--------------------------------

RANGE OF VARIABLES	
VARIABLE	SCOPE
Needs	Needs may be: outcome oriented, eg acquire something which will fulfil a perceived need or shortfall; product oriented, eg acquire a new computer system or building; improvement oriented, eg a better way of doing something; activity oriented, eg stage a major sporting event
Project deliverables	Project deliverables may include all products and services defined within the project scope.
Project authorisation	Project authorisation may be required only once or it may be required at a number of critical review points throughout the project. It may be in the form of a formal directive, project charter or statement of objectives which may include: broad details of required project outcomes and objectives; major project phases, activities and milestones; project manager's terms of reference, authorisations and limitations; relationship between project objectives and strategic objectives of the organisation
Scope	Scope may be comprehensively defined at the beginning of the project, or it may be progressively refined as the accuracy of information improves and understanding of the requirement is clarified. Scope may be expressed in a scope statement covering any measurable or observable elements which would demonstrate that the project purpose has been met.
Scope measurement factors	Scope measurement factors may include: percentage operating or overhead cost reduction; quantified performance or efficiency increase; quantified revenue or market share increase; other means of measurement
Scope definition	Scope definition may be expressed by clearly defined boundaries, such as: product breakdown structure (a cascade of products, sub-products, assemblies and components); organisation breakdown structure (a cascade of resource types, skill types or activities); work breakdown structure (a cascade of the products and work activities), and/or; some other form which comprehensively defines products and activities
Scope management	Scope management may include: progressive refinement of scope throughout project life cycle; controlling scope creep, ie incremental increases to scope to accommodate wishes rather than needs, eg "nice to have"; managing factors which influence changes to scope; determining that a scope change has occurred or is about to occur; managing scope changes when they occur; managing the effect of scope changes on other areas and on achievement of project objectives
Change management system	Change management system may include documentation, risk analysis, impact analysis, configuration management, change control boards and change orders for: major elements of the project liable to change, eg design, engineering, finance; project documentation, including plans, schedules, statements, directives, guidelines and instructions; formal agreements, eg contracts, sub-contracts, memoranda of understanding

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment must confirm the ability to manage the initial justification of the project and initial project start-up, as well as the ongoing definition of deliverables, objectives and constraints.
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT

BSX154L602 Manage scope

Underpinning skills and knowledge

Underpinning knowledge

- The place of scope management in the context of the project life, particularly the relationship between scope, performance, time, cost and quality
- The processes of justification and authorisation of project existence
- The importance of scope definition especially during project start-up, and ongoing throughout the project life cycle
- The importance of, and techniques related to, task definition
- The impact of project resource requirements on overall organisational objectives
- The principles of change management and their application
- Appropriate scope management methodologies, techniques and tools, their applicability, capabilities and limitations
- Detailed knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations

Underpinning skills

- Estimating skills for use across a range of unpredictable project contexts in relation to either varied or highly specific functions, for example when defining and planning the project scope
- Function point analysis skills for use across a range of unpredictable project contexts in relation to either varied or highly specific functions, for example when measurable project benefits and outcomes are determined and agreed to enable quantified evaluation of project performance
- Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when the impact of potential, perceived and actual scope changes is analysed and actions are taken to achieve or modify project objectives throughout the project life cycle
- Leadership skills in relation to guidance for achieving outcomes and transferring and collecting information and gaining consensus on concepts, for example when scope definition, scope management strategies and plans are developed, agreed and communicated to ensure clarity of understanding and ongoing management of project scope
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when scope management lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects.

Resources

Minutes of meeting, planning documentation, work orders, lists. Substantiating evidence may be: requirements definition and needs analysis documentation; project charter/ directive; project manager's terms of reference; project scope statement; project definition studies; work breakdown, product breakdown and organisation breakdown structures; formal agreements, eg contracts, sub-contracts, memoranda of understanding; records of management of change management system and procedures; records of scope lessons learnt

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	3	2	2	2	2

UNIT	BSX154L603 Manage time
-------------	----------------------------------

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Management of project time relates to the activities associated with development, analysis and control of project schedules. Meeting project objectives within the identified time frame is a critical factor in determining project success along with capability, cost and quality
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Develop project schedules	<ol style="list-style-type: none"> 1. The duration and effort, sequence and dependencies of tasks are determined from the output of scope definition and with input from appropriate stakeholders, as the basis for the project schedule 2. Time management methods, techniques and tools are selected, modified as necessary and are used to assess options, and determine preferred schedule, time management plans, resource allocation and financial requirements 3. Agreement for the schedule is formalised as appropriate and communicated to stakeholders as the basis for planning, implementation, review of progress and for subsequent schedule revision
2. Manage project schedules	<ol style="list-style-type: none"> 1. Mechanisms are developed, implemented and modified to monitor, control, record and report actual progress in relation to the agreed schedule and plans 2. Ongoing analysis is conducted to identify and forecast variances and trends and to develop responses to achieve project objectives throughout the project life cycle 3. Progress is reviewed and the schedule is refined throughout the project life cycle to ensure consistency with changing scope, objectives and constraints related to time and resource availability 4. Responses to perceived, potential or actual schedule changes are initiated and managed to achieve project objectives throughout the project life cycle
3. Analyse time management outcomes	<ol style="list-style-type: none"> 1. Project outcomes are reviewed and analysed to determine the effectiveness of the schedule and time management processes 2. Lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT	BSX154L603 Manage time
------	----------------------------------

RANGE OF VARIABLES	
VARIABLE	SCOPE
Time management activities	The individual may be responsible and accountable for the outcome of time management activities throughout the project life cycle which may be done independently or by taking the lead in a team environment; involve consultation with and selective involvement of appropriate project stakeholders; involve the selection, modification and supervision of the use of appropriate time management methods, processes, procedures, tools and techniques; be conducted substantially non-routinely to meet complex, changing circumstances; take into account the impact of organisational and environmental change on the project and vice versa
Information	Information to be drawn on may include: organisational policy and guidance; the project management body of knowledge; legislation affecting project management practice, particular occupations or industries; international conventions in project management best practice
Time management tools and techniques	Time management tools and techniques may involve: use of personal experience and/or subject matter experts; conducting or directing qualitative and/or quantitative time analysis, such as schedule simulation, decision analysis, contingency planning, alternative strategy development; collating and using the products of specialist time analysis to make project-wide time management decisions; assessing and reporting the potential impact of project time on the organisation
Communication advice and assistance	Communication advice and assistance may be received from other project/program managers, departmental heads and/or specialists within the organisation. Advice and assistance may be provided to project team members, section leaders, other projects and/or organisation members
Records	Records may take the form of: lists of variances, trends and forecasts of potential schedule events; Gantt, PERT and other scheduling charts; diaries, incident logs, occurrence reports and other such documentation; records of analysis, evaluation of options and selection processes; records of responses, results and lessons learnt; project and/or organisation files and records
Processes	Processes may include: setting, monitoring and adjusting key milestones; measurement and analysis of actual progress against planned milestones; recording, reporting and analysis of major variance and trends; development and implementation of schedule control trigger mechanisms; communication with stakeholders, dispute resolution, and modification procedures
Time management plans	Locate supporting evidence of both personal time management and management of time within the scope of the project or organisation

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment will confirm the ability to produce and manage project schedule and sub-schedules, important milestones, preferred and alternative schedule management strategies and actions, formal arrangements, responsibility assignment, contingency plans and assigned schedule management responsibilities
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT	BSX154L603 Manage time	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • The principles of project management and their application • Organisational policies, guidance and attitudes to time management • The relationship between time, cost and resources to the project management framework • Delegation and management of responsibilities for time management • Development of project schedules • Use of the schedule as a control mechanism. • Appropriate time management and estimating methodologies, techniques and tools, their capabilities and limitations, applicability and outcomes • The differences in work content, risk, processes, tools and techniques that apply in the various phases of the project life cycle 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when ongoing analysis is conducted to identify and forecast variances and trends and to develop responses to achieve project objectives throughout the project life cycle • Estimating skills for use across a range of unpredictable project contexts in relation to either varied or highly specific functions, for example when responses to perceived, potential or actual schedule changes are initiated and managed to achieve project objectives throughout the project life cycle • Function point analysis skills for use across a range of unpredictable project contexts in relation to either varied or highly specific functions, for example when mechanisms are developed, implemented and modified to monitor, control, record and report actual progress in relation to the agreed schedule and plans • Leadership skills in relation to guidance for achieving outcomes and transferring and collecting information and gaining consensus on concepts, for example when lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when agreement for the schedule is formalised as appropriate and communicated to stakeholders as the basis for planning, implementation, review of progress and for subsequent schedule revision
Resources	<p>All data relating to the candidates' decision making process, planning, timeframes and deadlines, perceived or real. Substantiating evidence may be: application of lessons learnt from previous project(s) in planning new project; time management strategies; time management analysis, forecasts and predictions; project work breakdown structure; key activity schedule; application of precedence and dependency principles to task definition; project schedule; records of regular and ad hoc communication of schedules to stakeholders; application of and modifications to monitoring, review and reporting mechanisms; application of actual progress against planned progress; records of corrective actions taken against variances in the project schedule; records of lessons learnt</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p>	
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills</p>	

UNIT	BSX154L603 Manage time
------	----------------------------------

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	3	2	2	2	2

UNIT	BSX154L604 Manage cost
-------------	----------------------------------

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Cost management includes the processes required to identify, analyse and refine project costs to produce a budget and is used as the principal mechanism to control project cost. Cost management is a factor critical to the success of the project, along with capability, time and quality
--------------------	---

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Develop size estimate	<ol style="list-style-type: none"> 1. Relevant historical data is determined to determine the size 2. Size estimates are generated using a size model 3. Cost estimates are determined by use of size model
2. Develop project budget	<ol style="list-style-type: none"> 1. Resource requirements for individual tasks and size requirements are determined, in consultation with appropriate stakeholders, to provide a basis for attributing expenditure 2. Project costs are estimated to enable budgets and cost management processes to be developed at an appropriate level throughout the project life cycle 3. Cost strategies and cost management plans are developed, communicated and are implemented to ensure clarity of understanding and ongoing management of project finances
3. Manage project costs	<ol style="list-style-type: none"> 1. Cost management systems are developed and maintained to monitor actual expenditure and to control costs throughout the project life cycle 2. Analysis is conducted, options are evaluated and responses to cost variations are implemented to maintain control over changing financial and overall project objectives throughout the project life cycle 3. Internal and external influences on project costs are monitored to forecast, and if necessary seek approval from higher project authority for, major changes to approved project budget
4. Manage financial completion	<ol style="list-style-type: none"> 1. Finalisation activities are managed to achieve integrated financial and physical project completion 2. Project outcomes are reviewed and are analysed to determine the effectiveness of cost management systems 3. Lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT	BSX154L604 Manage cost
------	----------------------------------

RANGE OF VARIABLES	
VARIABLE	SCOPE
Cost management activities	The individual may be responsible and accountable for the outcome of cost management activities throughout the project life cycle which may: be done independently or by taking the lead in a team environment; may involve consultation with and selective involvement of appropriate project stakeholders; may involve the selection, modification and supervision of the use of appropriate time management methods, processes, procedures, tools and techniques; may be conducted substantially non-routinely to meet complex, changing circumstances; will take into account the impact of organisational and environmental change on the project and vice versa
Financial management processes and procedures	Financial management processes and procedures may include: size estimation, approval processes; financial authorisations/ delegations; invoice procedures; audit and review; communication, reports and briefs
Accuracy of cost estimates	Accuracy of cost estimates may take account of: the stage of the project life cycle; the availability of information at the time; contingency to allow for identified risks and uncertainty; overhead and profit margin; government regulations/ industry codes of practice /organisational influences
Finalisation activities may include:	Finalisation activities may include: transition of responsibility/ownership of project deliverables/products; transfer of assets to the client or originating owner; warranty requirements; final audit/reconciliation; settling of financial liabilities; close-out of account codes and other financial documentation
Cost management	Cost management may require the application of personal judgement, the modification of methodologies and procedures and the direction of subject matter experts and others to manage routine and non-routine activities such as: cost modelling and estimating; financial analysis, eg benefit-cost analysis, cash flow analysis, earned value analysis; obligation and expenditure forecasting and long term planning; obtaining and revising financial delegations and authorisations; progress and financial change management
Records	Records may take the form of: records of potential and actual costs; financial summaries; budgets, commitment and expenditure; cost management plans; historical data, size models, reports to higher authority; financial charts and graphs; project and/or organisation files and records; cost management lessons learnt

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment will confirm the ability to manage and maintain the budget within negotiated limits. Assessment will involve comparison of actual spending against budget. It must always be presupposed that some form of budget has been prepared as a guideline for spending
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT	BSX154L604 Manage cost
-------------	-------------------------------

Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> The principles of project management and their application Organisational policies, guidance and attitudes to cost management The relationship of cost, time and resources to the project management framework Delegation and management of responsibilities for cost management Development of project budgets Use of the budget as a control mechanism Appropriate cost management and estimating methodologies, techniques and tools, their capabilities and limitations, applicability and outcomes The differences in work content, risk, processes, tools and techniques that apply in the various phases of the project life cycle 	<p>Underpinning skills</p> <ul style="list-style-type: none"> Cost benefit skills for use across a range of unpredictable project contexts in relation to either varied or highly specific functions, for example when developing size estimates Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when developing size estimates Accounting involving analysis, diagnosis, evaluation and the development and revision of project budgets, for example when cost management systems are developed and maintained to monitor actual expenditure and to control costs throughout the project life cycle Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects
Resources	<p>Access to the organisation’s budgetary records. Involvement by the organisation’s financial staff and the senior project staff. Substantiating evidence may be: application of lessons learnt from previous project(s) in planning new project; cost estimates at cost element and summary levels; cost management plans, strategies, analysis, forecasts and predictions; cost breakdown structures; financial feasibility studies; project budgets and expenditure forecasts; cash flow profiles; records of analysis of financial variance and trends and remedial actions; financial transition plans; budget control mechanisms; records of clearance of project liabilities and disposal of project assets; project finalisation reports; records of cost management lessons learnt; financial audit documentation</p>	
Consistency	<p>Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts</p>	
Context	<p>Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills</p>	

Key Competencies						
<p>Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)</p> <p>There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.</p>						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	2	2	3	2	2

UNIT	BSX154L605 Manage quality
-------------	-------------------------------------

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Quality is a factor critical to success of the project along with capability, cost and time. Project quality management comprises the activities required to optimise the quality policy and the processes of the project. Quality management applies objective standards and processes to achieve the largely subjective goal of customer satisfaction through the continuous application of quality planning, quality control, quality assurance and continuous improvement throughout the project life-cycle
--------------------	---

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Develop quality requirements	<ol style="list-style-type: none"> 1. Quality objectives, standards, levels and criteria are established in consultation with stakeholders, to establish the basis for quality outcomes 2. Quality management methods, techniques and tools are selected, modified as necessary and used to assess options and determine the preferred mix of quality, capability, cost and time 3. Quality criteria are identified and communicated to stakeholders to ensure clarity of understanding and achievement of quality and overall project objectives 4. Quality requirements are developed in consultation with stakeholders, included in quality and other project plans, communicated and implemented as basis for performance measurement 5. Areas are identified within the project which can be improved 6. Success of the project is contributed to by involving, informing and empowering all areas of the organisation
2. Manage quality assurance	<ol style="list-style-type: none"> 1. Results of project activities and product performance are analysed to determine compliance with agreed quality standards throughout the project life cycle 2. Causes of unsatisfactory results are identified, in consultation with clients and stakeholders, and appropriate actions are initiated to enable continuous improvement in quality outcomes 3. Inspections of quality processes are initiated and results are analysed to determine compliance of quality standards with overall quality objectives 4. A quality management system is developed and maintained to enable effective management and communication of quality issues and outcomes
3. Improve project quality	<ol style="list-style-type: none"> 1. The quality management system is reviewed and is modified continually throughout the project life cycle to ensure project team commitment to continuous improvement of quality processes and outcomes 2. Project outcomes are reviewed and analysed against performance criteria to determine the effectiveness of the quality management system 3. Quality management improvements and lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT	BSX154L605 Manage quality
-------------	-------------------------------------

RANGE OF VARIABLES	
VARIABLE	SCOPE
Quality management activities	The individual may be responsible and accountable for the outcome of quality management activities throughout the project life cycle which may: be done independently or by taking the lead in a team environment; involve consultation with and selective involvement of appropriate project stakeholders; involve the selection, modification and supervision of the use of appropriate quality management methods, processes, procedures, tools and techniques; be conducted substantially non-routinely to meet complex, changing circumstances; take into account the impact of organisational and environmental change on the project and vice versa
Information	Information to be drawn on may include: organisation policy and guidance; the project management body of knowledge; Australian and international quality standards; legislation affecting quality management; other legislation related to particular occupations and industries; international conventions in project management best practice
Quality Management Systems	Quality Management Systems may be based on ISO 9000 Series or they may be designed to meet the specific needs of the project
Quality Management Plans	Quality Management Plans may include processes, authorisations and responsibilities for quality control, quality assurance, continuous improvement, communications and responsibilities. They may also contain quality policies, critical success factors, measurement criteria, QM documentation requirements, and inspection, audit, report and review procedures.
Quality objectives	Quality objectives may be determined in consultation with the client and other stakeholders, in an environment of scarcity, involving a process of prioritisation and trade-off between cost, schedule, performance and quality which may impact upon customer satisfaction. Changing needs and wishes of clients throughout the project life cycle may require regular revision and modification of project and quality objectives
Quality standards	Quality standards may be selected from: ISO 9000 Series guidelines; government regulations (eg Trade Practices Acts, Environment Protection Acts); industry standards, regulations and work practices; organisation and project standards; client organisation standards
Project quality standards	Project quality standards may be determined in an environment of conflict and/or uncertainty, caused by: contradictions and/or differences between standards; areas of deficiency in all standards; outdated standards eg in areas of rapid change such as communications, computing; conflicting government (international, national, state or local) requirements Areas of conflict or uncertainty may be documented, assessed and decisions reflected in the quality management plan or other project plans, such as risk or cost.
Quality Control activities	Quality Control activities may range from managing conformance monitoring by internal or external agents, analysing variances with specifications, eliminating causes of unsatisfactory performance of products or processes. Activities may include review of standards to determine achievability and cost-effectiveness, or whether standards may need to be modified
Quality Assurance activities	Quality Assurance activities may include inspections and audits in compliance with quality control guidelines.
Quality improvement	Quality improvement may be achieved by formal practices such as total quality management or continuous improvement or by less formal processes which improve both the product quality and processes of the project, eg client surveys to determine client satisfaction with project team performance

UNIT

BSX154L605 Manage quality

EVIDENCE GUIDE

Critical aspects of evidence

Assessment will confirm the ability to manage the development and maintenance of quality processes. Assessment will include a demonstrable indication that quality/productivity has improved or is running at the optimum level

Interdependent assessment of units

The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

Underpinning skills and knowledge**Underpinning knowledge**

- The principles of quality management and their application
- The need for quality management in the project and its place in the overall organisation
- The importance of quality in trade-offs with time, cost and performance
- Quality policies and standards applicable in the project management environment
- Quality management tools, including their capabilities, limitations, applicability and outcomes
- What are quality outcomes, critical success and failure criteria and quality performance measures
- Detailed knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations

Underpinning skills

- Time management skills for use across a range of unpredictable project contexts in relation to either varied or highly specific functions, for example when quality management methods, techniques and tools are selected, modified as necessary and used to assess options and determine the preferred mix of quality, capability, cost and time
- QM skills for use across a range of unpredictable project contexts in relation to either varied or highly specific functions, for example when the quality management system is reviewed and is modified continually throughout the project life cycle to ensure project team commitment to continuous improvement of quality processes and outcomes
- Leadership skills in relation to guidance for achieving outcomes and transferring and collecting information and gaining consensus on concepts, for example when project outcomes are reviewed and analysed against performance criteria to determine the effectiveness of the quality management system
- Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when causes of unsatisfactory results are identified, in consultation with clients and stakeholders, and appropriate actions are initiated to enable continuous improvement in quality outcomes
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when quality management improvements and lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

Resources

Access to organisation records, documentation from service areas, users. Interview stakeholders, users and other team members to determine whether quality has been improved. Testaments from external sources may also be of use. Locate any logs, diary or documentation which suggests a list of areas targeted for improvement. Substantiating evidence may be: lists of project quality stakeholders and quality objectives; records of selection processes and use of quality tools; quality management plans; records of inspections, modifications and quality outcomes; records of selection, management and modifications of quality management system; quality control, quality assurance and continuous improvement processes; documentation of quality management lessons learnt; relation of project quality outcomes to the continuous improvement objectives of the organisation's overall quality management system

UNIT	BSX154L605 Manage quality
-------------	-------------------------------------

Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies						
Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)						
There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.						
Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	2	2	2	2	2

UNIT	BSX154L606 Manage human resources
-------------	---

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Project human resource management (HRM) involves the development of individuals and sub-teams into a cohesive project unit with the common purpose of meeting project objectives. Human resource management includes determining the resources required to manage project tasks, both within the core project team and the broader organisational matrix. Staff recruitment, selection, training and development is conducted to accommodate change throughout the project life-cycle.
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Manage project organisation and staffing	<ol style="list-style-type: none"> 1. Resource requirements for individual tasks are determined, in consultation with appropriate stakeholders, to establish a basis for determining project staffing levels and competencies 2. Project organisation and structure is developed and agreed with higher authority to optimise alignment of individual and group competencies with project tasks 3. Staff are recruited, allocated to and within the project or reallocated within the organisation, as agreed with higher project authority, to meet competency requirements throughout the project life cycle 4. HRM methods, techniques and tools are selected, modified as necessary and used to develop a HRM system and HRM plans to ensure clarity of understanding and ongoing HR management
2. Manage staff performance	<ol style="list-style-type: none"> 1. Individuals' responsibilities, authority and personal performance measurement criteria are agreed to ensure clarity of understanding of the work and to provide a basis for ongoing assessment 2. Ongoing development and training of project team members is identified, planned and implemented to achieve HRM and overall project objectives 3. Individuals' performance is measured against agreed criteria and actions are initiated to overcome shortfalls in performance and encourage career progression
3. Lead the project team	<ol style="list-style-type: none"> 1. A system of continuous improvement of staff is managed to improve staff and overall project effectiveness 2. Internal and external influences on individual and team performance and morale are analysed and actions are taken to reduce the impact on project effectiveness 3. Procedures for interpersonal communication, counselling and conflict resolution are established and maintained to promote a positive working environment 4. Intra-organisational, inter-project and intra-project conflict is identified and positively managed to maximise achievement of project objectives 5. HRM lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT	BSX154L606 Manage human resources
-------------	---

RANGE OF VARIABLES

VARIABLE	SCOPE
Project organisation and staffing	Project organisation and staffing may be affected by external influences such as: anti-discrimination; equal employment opportunity; affirmative action; occupational health and safety; work place bargaining; accepted work practices
HRM development and training	HRM development and training may be formal or informal, and may include: project management; general management; project administration, e.g. computer applications, filing systems etc; specialist/professional skills and career progression; interpersonal communications; team building and group activities
HRM methods, techniques and tools	HRM methods, techniques and tools may include: individual and group competency identification and development; HRM forecasts, staffing plans and job descriptions; staff recruitment and reallocation; performance monitoring, assessment and reporting; conflict resolution
Project staff	Project staff may come from: within the organisation; loan staff from other projects; consultants; external authorities, eg auditors, quality assurance

EVIDENCE GUIDE

Critical aspects of evidence	Assessment will confirm the ability to manage the development and maintenance of HR processes. Assessment will include a demonstrable indication that HRM is assisting the project to run at the optimum level	
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.	
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • The importance of human resource management in the project management environment • Policies, standards and methods required to achieve HRM outcomes • The use of HRM selection, assignment, training, performance evaluation and motivation tools, including their capabilities, limitations, applicability and outcomes • The conflict and stress issues associated with individuals tasked with project management, especially within a human resource matrix management environment • HRM outcomes, critical success and failure criteria and HRM performance measures • The application of interpersonal skills • Assessment of interpersonal strengths and weaknesses • Application of relevant strategies, eg leadership, decision making, group dynamics, change management, learning/coaching. • The differences in work content, processes and risk that affect HRM requirements in the various phases of the project life cycle • Detailed knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Leadership skills in relation to guidance for achieving outcomes and transferring and collecting information and gaining consensus on concepts, for example when resource requirements for individual tasks are determined, in consultation with appropriate stakeholders, to establish a basis for determining project staffing levels and competencies • Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when intra-organisational, inter-project and intra-project conflict is identified and positively managed to maximise achievement of project objectives • Contract negotiation skills in relation to achieving outcomes and gaining consensus on concepts/contracts, for example when staff are recruited, allocated to and within the project or reallocated within the organisation • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when leading the project team • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when the individuals' responsibilities, authority and personal performance measurement criteria are agreed to ensure clarity of understanding of the work and to provide a basis for ongoing assessment

UNIT	BSX154L606 Manage human resources
-------------	---

Resources	Assessment requires access to personnel records and other secure documents and may involve the HR members who are familiar with the responsibilities of the candidate. Records of contribution to team activities, including team training and development, records of conflict resolution and personnel records will be useful for assessment purposes. Substantiating evidence may be: current and future requirements for competency within the project team; staffing levels and competencies related to task; job descriptions including measures of performance; project organisation charts; staff recruitment and selection criteria; team and individual responsibilities, levels of authority and performance assessment criteria; responsibility assignment matrix; HRM system, including performance measurement and reporting and conflict resolution procedures; HRM plans, including training and development plans; records of analysis of internal and external influences on HRM performance; HRM lessons learnt
Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	2	3	2	2	2

UNIT	BSX154L607 Manage communications
-------------	--

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Project communications management provides a critical link between people, ideas and information at all stages in the project life-cycle. Project communications management ensures the timely and appropriate generation, collection, dissemination, storage and disposition of project information via formal structures and processes to aid in decision making, and the control of informal communication networks to aid the achievement of project objectives.
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Plan project communications	<ol style="list-style-type: none"> 1. Information requirements are identified, documented and analysed, in consultation with appropriate stakeholders, as the basis for communications planning 2. Communications management plans and strategies are developed and managed to ensure clarity of understanding and achievement of project objectives throughout the project life cycle 3. Project management information system, structure and procedures are developed to maintain the quality, validity, timeliness and integrity of information and communication
2. Manage project information	<ol style="list-style-type: none"> 1. The generation, gathering, storage, retrieval, analysis and dissemination of information by project staff and stakeholders is managed to improve decision making processes and the communications management system throughout the project life cycle 2. Information validation processes are developed, managed and modified to ensure consistent quality and accuracy of data
3. Manage communications	<ol style="list-style-type: none"> 1. Formal and informal communication networks between project, client and other stakeholders are developed and managed to ensure effective communications at appropriate levels throughout the project life cycle 2. Potential, perceived and actual problems with communication and management information systems are identified and remedial actions are initiated to ensure project objectives are met 3. Customer relationships are managed to ensure clarity of understanding of objectives and to minimise conflict throughout the project life cycle
4. Analyse communications management outcomes	<ol style="list-style-type: none"> 1. Finalisation activities are managed to ensure ownership of and responsibility for information is clearly understood and achieved 2. Project outcomes are reviewed and analysed to determine the effectiveness of management information and communications systems 3. Lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT	BSX154L607 Manage communications
------	--

RANGE OF VARIABLES	
VARIABLE	SCOPE
Communications management activities	The individual may be responsible and accountable for the outcome of communications management activities throughout the project life cycle which may: be done independently or by taking the lead in a team environment; involve consultation with and selective involvement of appropriate project stakeholders; involve the selection, modification and supervision of appropriate communications management methods, processes, procedures and tools; be conducted substantially non-routinely to meet complex, changing circumstances; take into account the impact of organisational and environmental change on the project and vice versa
Informal communication	Informal communication may be: within the project, across the organisation, with external stakeholders, with the client and/or with the general public. The individual may communicate directly or monitor and control communication between project team members and the client and/or stakeholders
Formal communication	Formal communication may be conducted by the individual on behalf of the project or organisation to: seek advice, inform, explain, discuss, warn, recommend, praise, summarise, or report to higher project authorities, project team members, stakeholders, the client or the public, regularly or by exception
Project Management Information Systems (PMIS)	Project Management Information Systems (PMIS) range from complex computer-based systems to simple manual systems. Selection and modification may be dependent on unique project circumstances which may be influenced by: organisational policy; project complexity; available/emerging technology; financial constraints; legal/ethical constraints; user capabilities
PMIS	PMIS may include: networks structure, processes and procedures for storage and communication of information; individual and group authority and responsibilities; hierarchy of decision making responsibility/authority; limitations and restrictions on subject matter and methods of communication; types, responsibilities, distribution and regularity of reports, as well as follow-up procedures
Validation of information	Validation of information may be influenced by: age of the information; level of detail of information (too much or too little); language (translated or converted data may need special attention); changes to standards, regulations or limits since information was compiled; degree of exposure to mis-information and dis-information; potential impact of the information on the project outcome; cost of the validation process

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment will confirm the ability to manage the development and maintenance of communication processes and channels. Assessment will include a demonstrable indication that communication processes and channels are assisting the project to run at the optimum level
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT		BSX154L607 Manage communications
Underpinning skills and knowledge	<p>Underpinning knowledge</p> <ul style="list-style-type: none"> • The principles of communications management and their application • The importance of communications at all levels and at all times in the project life cycle and its relationship with other project management functions • Establishment and maintenance of structured communication networks in a rapidly evolving technological environment involving computer-based, interpersonal and media-based methods of communication • Appropriate communication management technologies; their capabilities, limitations, applicability and contribution to project outcomes • Drafting or delegating others to draft, vetting, endorsing and forwarding of reports to higher authority • Detailed knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations 	<p>Underpinning skills</p> <ul style="list-style-type: none"> • Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when potential, perceived and actual problems with communication and management information systems are identified and remedial actions are initiated to ensure project objectives are met • Leadership skills in relation to guidance for achieving outcomes and transferring and collecting information and gaining consensus on concepts, for example when finalisation activities are managed to ensure ownership of and responsibility for information is clearly understood and achieved • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when information requirements are identified and documented • Teamwork skills involve the guidance of team members to identify and achieve solutions and goals of a non-routine or contingency nature, for example when customer relationships are managed to ensure clarity of understanding of objectives and to minimise conflict throughout the project life cycle. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when finalisation activities are managed to ensure ownership of and responsibility for information is clearly understood and achieved • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects
Resources	<p>Access to project communiqués and reports, reports of interview with associated parties. Assessment will be based on interviews and the examination of written communication, e.g. memoranda, letters, email, logs. Substantiating evidence may be: communications management plans and strategies; project management information system; progress reports upwards and downwards within project and organisation; records of meetings, outcomes and actions; formal briefs, presentations, media releases, newsletters; records of collection, validation, storage, retrieval, analysis and/or dissemination of information; validation processes and post-validation modifications; formal and informal communication networks; records of communications problems, analysis and solutions; records of communications management lessons learnt</p>	

UNIT	BSX154L607 Manage communications
-------------	--

Consistency	Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts
Context	Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	3	2	2	2	2	2

UNIT	BSX154L608 Manage risk
-------------	----------------------------------

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Risks are factors which might adversely affect project outcomes. Risk management includes the processes concerned with identifying, analysing and responding to uncertainty. It also includes maximising the results of positive events and minimising the consequences of adverse events. The risk management process is completed through review of the plan and recording of lessons learnt
--------------------	--

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Plan risk management	<ol style="list-style-type: none"> 1. Potential, perceived and actual risk events are identified, documented and analysed, in consultation with appropriate stakeholders, as the basis for risk management planning 2. Risk management methods, techniques and tools are selected and modified as necessary to analyse information, evaluate options and determine preferred risk approaches within the overall project environment 3. Risk management plans and strategies are developed, communicated to the client and appropriate stakeholders and managed, to ensure clarity of understanding and achievement of project objectives throughout the project life cycle 4. Risk management system is developed and is maintained to enable effective management and communication of risk events, responses and results to stakeholders
2. Manage project risk	<ol style="list-style-type: none"> 1. Project is managed in accordance with agreed project and risk management plans to ensure common approach to achievement of objectives 2. Progress is reviewed, variance is analysed and risk responses are initiated to achieve project objectives with minimal disruption and conflict in a changing environment 3. Internal and external risks to project outcomes are monitored and remedial actions are initiated to achieve project objectives, or if necessary, to modify project objectives
3. Assess risk management outcomes	<ol style="list-style-type: none"> 1. Project outcomes are reviewed and analysed to assess the effectiveness of the risk management system 2. Lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT	BSX154L608 Manage risk
------	----------------------------------

RANGE OF VARIABLES	
VARIABLE	SCOPE
Outcome of risk management activities	The individual may be responsible and accountable for the outcome of risk management activities throughout the project life cycle which may: be done independently or by taking the lead in a team environment; involve consultation with and selective involvement of appropriate project stakeholders; involve the selection, modification and supervision of the use of appropriate risk management methods, processes, procedures, tools and techniques; be conducted substantially non-routinely to meet complex, changing circumstances; take into account the impact of organisational and environmental change on the project and vice versa
Risk management tools and techniques	Risk management tools and techniques may involve: calling upon personal experience and/or subject matter experts; conducting or directing qualitative and/or quantitative risk analysis, such as schedule simulation, decision analysis, contingency planning, alternative strategy development; collating and using the products of specialist risk analysis to make project-wide risk management decisions; assessing and reporting the potential impact of project risk on the organisation
Risk management plans	Risk management plans may include: potential risk events, preferred and alternative risk management strategies and actions, formal arrangements, responsibility assignment, contingency plans and assigned risk responsibilities.
Risk management strategies	Risk management strategies may include acceptance, avoidance or minimisation

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment will confirm the ability to manage and identify risk as either to the project (affecting deliverables) from an external source or by the project (affecting deliverables) from within the project
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT	BSX154L608 Manage risk
-------------	----------------------------------

Underpinning skills and knowledge

Underpinning knowledge

- Uncertainty and the means of measurement
- Organisational policies, guidance and attitudes to risk management
- Personal attitudes to uncertainty and risk, and how they might impact on the project's and organisation's approach to risk management
- The place of risk management in the context of the project life cycle and other project management functions
- Appropriate risk management methodologies, their capabilities, limitations, applicability and outcomes
- The differences in work content, risk, processes, tools and techniques that apply in the various phases of the project life cycle
- Detailed knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations

Underpinning skills

- Assessment skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when progress is reviewed, variance is analysed and risk responses are initiated to achieve project objectives with minimal disruption and conflict in a changing environment
- Report writing skills for business requiring depth in analysis and evaluation of information in an undefined range of areas, for example when potential, perceived and actual risk events are identified, documented and analysed, in consultation with appropriate stakeholders, as the basis for risk management planning
- Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when internal and external risks to project outcomes are monitored and remedial actions are initiated to achieve project objectives, or if necessary, to modify project objectives
- Leadership skills in relation to guidance for achieving outcomes and transferring and collecting information and gaining consensus on concepts, for example when project is managed in accordance with agreed project and risk management plans to ensure common approach to achievement of objectives
- Negotiation skills in relation to and applied to a undefined range of unpredictable problems, for example when risk management methods techniques and tools are selected and modified as necessary to analyse information, evaluate options and determine preferred risk approaches within the overall project environment

Resources

Access to the substantiating evidence, contracts, time lines etc. Review audit trails and logs. Substantiating evidence may be: records of risk management lessons learnt and application in other projects; collated lists of potential risk events; records of identification and prioritisation of risk events; detailed records of risk analysis, forecasts and predictions and reappraisal; risk management plans; details of development and management of risk management system; details of modifications to risk management system, plans and procedures; documentation of formal risk management arrangements e.g. contract; risk management lessons learnt

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

UNIT

BSX154L608 Manage risk**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	2	2	2	2	2	2

UNIT	BSX154L609 Manage procurement
-------------	--------------------------------------

FIELD	Project Management
--------------	---------------------------

DESCRIPTION	Procurement activities are normally defined and planned early and refined throughout the project life-cycle to ensure changing project objectives are met. Whether involvement in the procurement process is as the client, the prime contractor, or as a sub-contractor, will influence the perspective from which the procurement activities are addressed; however, similar project management processes would normally apply.
--------------------	---

RELATED COMPETENCY STANDARDS	This unit is taken from the National Competency Standards for Project Management. The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit; however, project management is relevant to all functional areas
-------------------------------------	--

ELEMENT	PERFORMANCE CRITERIA
1. Plan project procurement	<ol style="list-style-type: none"> 1. Product specifications and procurement requirements are identified, analysed and prioritised, in consultation with appropriate stakeholders, as the basis for procurement planning and the contract 2. Procurement strategies, methods and management plans are developed, agreed and managed to reflect agreed changes to project objectives throughout project life cycle 3. Involvement by HR is ensured when procuring human resources
2. Set up procurement process	<ol style="list-style-type: none"> 1. Potential sources capable of fulfilling procurement requirements are identified and evaluated to determine the extent to which project objectives can be met 2. Selection processes and selection criteria are determined in consultation with stake holders and communicated to prospective contractors to ensure fair competition 3. Higher project authority endorsements are obtained when necessary to ensure procurement actions accord with organisation and project objectives
3. Manage procurement process	<ol style="list-style-type: none"> 1. Proposals are developed, agreed, and communicated to prospective contractors to ensure clarity of understanding of project objectives, responsibilities and methods of achievement 2. Responses are evaluated and preferred contractors are selected in accordance with agreed selection processes 3. Contract terms and conditions are negotiated between client and preferred contractor to agree common goals and to minimise uncertainty
4. Manage contracts	<ol style="list-style-type: none"> 1. Procurement activities are managed in accordance with agreed contract and procurement management plans to ensure common approach to achievement of objectives 2. Progress is reviewed, variance is analysed and agreed changes are implemented to ensure project objectives are met within the legal framework of the contract 3. Potential, perceived and actual contractual conflicts are identified and remedial actions are implemented to minimise disruption to achievement of contract and project objectives
5. Finalise contracts	<ol style="list-style-type: none"> 1. Finalisation activities are managed to ensure quality of, and responsibility for contract deliverables accords with contractual and project requirements 2. Project outcomes are reviewed and analysed to determine the effectiveness of procurement processes and procedures 3. Lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT	BSX154L609 Manage procurement
------	--------------------------------------

RANGE OF VARIABLES	
VARIABLE	SCOPE
Outcome of procurement management activities	The individual may be responsible and accountable for the outcome of procurement management activities throughout the project life cycle which may: be done independently or by taking the lead in a team environment; involve consultation with and selective involvement of appropriate project stakeholders; involve the selection, modification and supervision of the use of appropriate procurement management methods, processes, procedures, tools and techniques; be conducted substantially non-routinely to meet complex, changing circumstances; take into account the impact of organisational and environmental change on the project and vice versa
Contracts or formal arrangements	Contracts or formal arrangements may require a single contract or several contracts. Project phases may be treated as separate contracts in their own right, e.g. concept development, project definition study, prototype development, full scale production and shut-down/finalisation; or there may be a prime contract integrated with a number of sub-contracts. In some instances, for example, between government departments, the contract may be in the form of an agreement such as a Memorandum of Understanding, or possibly an informal undertaking to provide a service or product to another department. Selection of appropriate formal arrangements and the legal implications of such agreements may require sound judgement and complex analytical and communication skills.
Project procurement policy	Project procurement policy may be influenced by: government law, regulations and guidelines; industry standards and guidelines; organisation policy, practices and procedures; limiting factors within the project
Procurement records	Procurement records may take the form of: product specifications; procurement management plans; contract analysis, evaluation of options, strategy development; contractor identification, evaluation and selection records; contract negotiation documentation, e.g. contract negotiation strategies, plans, team and individual directives; progress measurement and conflict resolution process records; development and management of contract change procedures; test and acceptance procedures; contract discharge procedures and outcomes; procurement management lessons learnt
Procurement management plans	Procurement management plans may include: contract performance plans and an associated performance monitoring processes; contractor and sub-contractor responsibilities, controls and reporting relationships; procurement, test and acceptance procedures and payment schedules; conflict resolution processes; explanatory information (eg background, restrictions or expectations) relating to special terms and conditions; planning for long lead-time items and critical project components; transition plans

EVIDENCE GUIDE	
Critical aspects of evidence	Assessment will confirm the ability to manage contracting activities from formation, such as product and contract definition, market analysis, through the tendering process up to contract formation, to contract performance, management and administration after contract award. Project procurement management concludes with finalisation of the project's contractual requirements
Interdependent assessment of units	The interdependence of units of competency for assessment will vary with the particular project or scenario. The project management units are considered important to all aspects of IT and should therefore be assessed in a holistic manner with the technical units.

UNIT	BSX154L609 Manage procurement
-------------	---

EVIDENCE GUIDE

Underpinning skills and knowledge	Underpinning knowledge	Underpinning skills
	<ul style="list-style-type: none"> • The principles of procurement management and their application • The principles of contracts and contractual legal requirements from the project management perspective • Contract types, their capabilities, limitations, applicability and outcomes • Personal and team oriented contract negotiation skills • Procurement management processes and procedures • Detailed knowledge of OHS requirements in relation to work safety, environmental factors and ergonomic considerations 	<ul style="list-style-type: none"> • Negotiation skills in relation to and applied to a undefined range of unpredictable problems, for example when proposals are developed, agreed, and communicated to prospective contractors to ensure clarity of understanding of project objectives, responsibilities and methods of achievement • Contract negotiation skills in relation to achieving outcomes and gaining consensus on concepts/ contracts, for example when contract terms and conditions are negotiated between client and preferred contractor to agree common goals and to minimise uncertainty • Audit/interview skills in relation to and applied to a undefined range of unpredictable problems, for example when finalisation activities are managed to ensure quality of, and responsibility for contract deliverables accords with contractual and project requirements • Problem solving skills for a broad range of unpredictable problems involving analysis, diagnosis, evaluation and the development of new criteria, knowledge or procedures, for example when potential, perceived and actual contractual conflicts are identified and remedial actions are implemented to minimise disruption to achievement of contract and project objectives • Leadership skills in relation to guidance for achieving outcomes and transferring and collecting information and gaining consensus on concepts, for example when procurement activities are managed in accordance with agreed contract and procurement management plans to ensure common approach to achievement of objectives • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when proposals are developed, agreed, and communicated to prospective contractors to ensure clarity of understanding of project objectives, responsibilities and methods of achievement • Teamwork skills involve the guidance of team members to identify and achieve solutions and goals of a non-routine or contingency nature, for example when selection processes and selection criteria are determined in consultation with stake holders and communicated to prospective contractors to ensure fair competition. • Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts, for example when project outcomes are reviewed and analysed to determine the effectiveness of procurement processes and procedures • Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas, for example when lessons learnt are passed to higher project authority and feedback is provided for application in planning and implementation of later projects

UNIT

BSX154L609 Manage procurement**Resources**

The organisation's purchasing department may be involved to provide input and resources to validate the assessment. All documentation that validates the proof of compliance will be required. Provide evidence of negotiations being carried out within organisational guidelines. Ensure validation of fairness and legality in negotiation. Substantiating evidence may be: product specifications; procurement management plans; records of analysis, evaluation of options, procurement strategy development; contractor identification, evaluation and selection records; tendering documentation, evaluation criteria and selection processes; contract negotiation documentation, eg contract negotiation strategies, plans, team and individual directives or working documents; progress measurement and conflict resolution process records; records of development and management of contract change procedures; records of test and acceptance procedures; records of contract discharge procedures and documentation; records of procurement management lessons learnt and application in other projects

Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts

Context

Assessment of this unit of competence will usually include observation of real or simulated work processes and procedures; quality projects, questioning on underpinning knowledge and skills

Key Competencies

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

Collect, Analyse & Organise Info.	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	3	2	2	2	2

12. Other

BSBADV401A	Profile a target audience	12-3
BSBMKG403A	Analyse market data.....	12-7
BSBSLS301A	Develop product knowledge.....	12-11
BSBSLS302A	Identify sales prospects.....	12-15
BSBSLS304A	Secure prospect commitment.....	12-19
BSBSLS306A	Self-manage sales performance	12-23
WRRS.1A	Sell Products and Services	12-27
WRRS.3A	Co-ordinate Sales Performance	12-33
WRRSS.9A	Recommend Computer Products and Services	12-39
BSBEBUS406A	Monitor and maintain records in an online environment	12-47
BSBEBUS408A	Implement and monitor delivery of quality customer service online.....	12-52
BSBEBUS501A	Evaluate e-business opportunities	12-57
BSBEBUS503A	Design an e-business	12-62
BSBEBUS504A	implement an e-business strategy	12-67
BSBEBUS505A	Implement new technologies for business.....	12-71
BSBEBUS506A	Plan and develop a business website	12-75
BSBEBUS508A	Build a virtual community	12-80
BSBEBUS509A	Implement e-business outsourcing arrangements.....	12-83
BSBEBUS510A	Manage e-business outsourcing	12-87
BSBEBUS511A	Implement a knowledge management strategy for an e-business.....	12-92
BSBEBUS512A	Implement electronic communication policy.....	12-96
BSBEBUS518A	Manage an e-business supply chain	12-99
BSBEBUS601A	Develop an e-business strategy	12-103
BSBEBUS602A	Develop an action plan for an e-business strategy	12-108
BSBEBUS603A	Evaluate new technologies for business	12-113
BSBEBUS604A	Develop a business website strategy	12-117
BSBEBUS605A	Identify and implement e-business innovation.....	12-121
BSBEBUS607A	Develop e-business outsourcing policy and guidelines.....	12-124
BSBEBUS609A	Develop a knowledge management strategy for an e-business	12-128
BSBEBUS613A	Develop online customer service strategies.....	12-130
BSBEBUS616A	Plan an e-business supply chain	12-135
BSZ406A	Plan a series of training sessions.....	12-139
BSZ501A	Analyse competency requirements.....	12-145
BSZ502A	Design and establish the training system	12-148
BSZ503A	Design and establish the assessment system	12-153
BSZ505A	Evaluate the training and assessment system.....	12-162
BSZ506A	Develop assessment procedures.....	12-167

BSZ507A	Develop assessment tools	12-173
BSZ508A	Design training courses.....	12-178
CUFIMA01A	Produce and manipulate digital images	12-183
CUFIMA04A	Create 3D digital animation	12-186
CUFIMA05A	Create 3D digital models and images	12-190
CUFMEM06A	Design a multimedia product	12-195
CUFMEM07A	Apply principles of visual design and communication to the development of a multimedia product	12-199
CUFMEM08A	Apply principles of instructional design to a multimedia product	12-204
CUFMEM10A	Design and create a multimedia interface.....	12-207
CUFMEM11A	Design the navigation for a multimedia product.....	12-210
CULLB412A	Undertake cataloguing activities.....	12-214
PRSAS01A	Undertake security assessment	12-218
PRSAS02A	Assess security requirements in complex or high risk environments.....	12-221
PRSAS03A	Specify and configure security system.....	12-223
PRSIR11A	Monitor security risk management plan.....	12-226
PRSIR12A	Review security risk management plan.....	12-228

Unit	BSBADV401A Profile a target audience
Unit Descriptor	This unit covers segmenting the market and profiling a target audience to enable targeting of products/services. This unit is related to BSBADV503A Coordinate advertising research.
Competency Field	Business Development

Element	Performance Criteria
1. Identify the target market	1.1 <i>Approaches</i> to determining and describing the total market for a product or service are evaluated and chosen 1.2 The target market is defined in terms of the consumers to be included as prospective users of a product or service 1.3 Descriptions of the target market use the same <i>terms as those used to describe media audiences</i>
2. Segment the market	2.1 <i>Criteria</i> to use in segmenting the market are evaluated and chosen in accordance with the advertising brief 2.2 <i>Sources of information for segmenting and profiling markets</i> are identified and accessed in accordance with the advertising brief 2.3 The market is segmented in accordance with the selected criteria 2.4 Market segments are evaluated for their usefulness in terms of size, potential, distinctive needs, easy identification of members, and/or distinctive media use patterns 2.5 Market segment/s are selected to meet the requirements of the advertising brief or new segmentation criteria are chosen and applied
3. Profile target audience	3.1 The total market and the selected market segment/s are described in the form of a consumer profile that identifies <i>consumer</i> characteristics in <i>standard statistical terms</i> and/or the descriptive terms used in media selection 3.2 <i>Demographic</i> and /or <i>psychographic</i> descriptions are used in the consumer profile in accordance with the requirements of the advertising brief 3.3 The profile meets organisational requirements in terms of language, format, content and level of detail

Unit	BSBADV401A Profile a target audience
Range Statement	

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

Approaches to determining the total market may include:

- award and enterprise agreements and relevant industrial instruments
- relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- relevant industry codes of practice
- identifying consumers with relevant needs
- identifying current users of a product or service
- identifying people with related characteristics

Unit	BSBADV401A Profile a target audience
Range Statement	
<p>Terms used to describe media audiences may include:</p>	<ul style="list-style-type: none"> • demographics: • age • sex • education • marital status • occupation • nationality • first language • children • income
<p>Market segmentation is</p> <p>Criteria to use in market segmentation may include:</p>	<ul style="list-style-type: none"> • the process of dividing a market into consumer subgroups, each of which has different needs • consumer needs • benefits desired • product/service usage • attitude • demographics • lifestyle • social and cultural factors • business characteristics
<p>Sources of information for segmenting and profiling markets may include:</p>	<ul style="list-style-type: none"> • industry sources • existing research data • original a priori research (where the market segments are assumed at the beginning and research is used to confirm them) • original response based research
<p>Consumers may include:</p>	<ul style="list-style-type: none"> • individuals • businesses • households
<p>Standard statistical terms</p>	<ul style="list-style-type: none"> • are those categories used by the Australian Bureau of statistics in collecting and reporting census data
<p>Demographic descriptions may include:</p>	<ul style="list-style-type: none"> • date and place of birth • sex • nationality • indigenous Australian • education • occupation • marital status • first language • other languages spoken at home • number and age of children • income level • disability
<p>Psychographic descriptions may include:</p>	<ul style="list-style-type: none"> • activities • interests • opinions • values • attitudes • lifestyle

Unit	BSBADV401A Profile a target audience
Evidence Guide	

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Rationale for choosing approach to describing the market and segmentation criteria
Underpinning Knowledge* * At this level the learner must demonstrate understanding of a broad knowledge base incorporating some theoretical concepts.	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Advertising brief • Purposes of advertising • Advertising objectives
Underpinning Skills	<ul style="list-style-type: none"> • Literacy skills to identify demographic and other information, to write descriptive • Communication including clarifying and reporting • Numeracy skills for collecting and analysing quantitative information • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statement • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Unit	BSBADV401A Profile a target audience
-------------	---

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 2	Level 2	Level 2	Level 2	Level 2	Level 3	Level 1

Three levels of performance denote level of competency required to perform a task.

1. Perform

2. Administer

3. Design

- **Collecting, analysing and organising information** – to evaluate market segments
- **Communicating ideas and information** – through the development of a consumer profile
- **Planning and organising activities** – to choose approaches and criteria to segment the market
- **Working with teams and others** – to identify and access sources of information for segmenting and profiling
- **Using mathematical ideas and techniques** – to analyse data and draw conclusions
- **Solving problems** – by evaluating segments and re-doing the process if necessary
- **Using technology** – to apply segmentation criteria and analyse data if required

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

Unit	BSBMKG403A Analyse market data
Unit Descriptor	This unit covers analysis of market data to assist in targeting marketing activities and drawing up a marketing plan. This unit is related to BSBMKG301A Research the market. Consider co-assessment with BSBMKG401A Profile the market, BSBMKG402A Analyse consumer behaviour for specific markets, and BSBMKG404A Forecast market and business needs.
Competency Field	Business Development

Element	Performance Criteria
1. Interpret <i>trends and market developments</i>	1.1 <i>Statistical analysis</i> of market data is used to interpret market trends and developments 1.2 Trends and developments are analysed for their potential impact on the business 1.3 Measures of central tendency / dispersion and correlations between sets of data are used for quantitative interpretation of comparative market data 1.4 Qualitative analysis of comparative market information is performed as a basis for reviewing business performance
2. Interpret competitor market performance	2.1 The market performance of existing and potential competitors and their products or services is analysed to identify potential <i>opportunities</i> or threats 2.2 Business performance is compared to that of competitors to identify market position
3. Report on market data	3.1 Data is prepared, plotted and interpreted for visual presentation 3.2 Visual presentation is assessed for potential problems, and corrective action taken if necessary 3.3 Report meets organisational requirements in terms of content, format and level of detail 3.4 Report is submitted within the required timeframe

Unit	BSBMKG403A Analyse market data
Range Statement	

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace which may include:	<ul style="list-style-type: none"> • award and enterprise agreements and relevant industrial instruments • relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • relevant industry codes of practice
Trends and developments may include:	<ul style="list-style-type: none"> • economic trends (local, regional, national, international) • ecological/environmental trends • Government activities eg interest rates, deregulation • social and cultural factors • demographic trends • changes in technology • industrial trends
Statistical analysis may include:	<ul style="list-style-type: none"> • sampling • measures of central tendency • measures of dispersion • nature and degree of relationship between variables • time series analysis • normal distribution probability curve
Measures of central tendency and correlations may include:	<ul style="list-style-type: none"> • mean • median • mode • for grouped or ungrouped data • cross-tabulations • Z, T and chi square tests
Comparative market information may include:	<ul style="list-style-type: none"> • best practice information • international benchmarking • inter-firm comparison data
Opportunities may include:	<ul style="list-style-type: none"> • potential for greater penetration of existing markets with existing products or services • new products or services for existing markets • new products or services for new markets • extending, expanding or otherwise changing an existing business • joint ventures • cooperative ventures • strategic alliances • franchising • exports
Legal and ethical constraints may include:	<ul style="list-style-type: none"> • legislation, eg Trade Practices Act • regulations • codes of practice • ethical principles • policies and guidelines • society's expectations • cultural expectations and influences • social responsibilities eg protection of children, environmental issues

Unit	BSBMKG403A Analyse market data
Evidence Guide	

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Reasons for conclusions drawn from interpretation of data • Knowledge of statistical techniques and elementary probability concepts
<p>Underpinning Knowledge*</p> <p>* At this level the learner must demonstrate understanding of a broad knowledge base incorporating some theoretical concepts.</p>	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Organisation’s business structure, products and services • Sources of market and comparative data • Business competitors • Statistical reporting format/s • Computing especially spreadsheets, statistical packages and Internet
Underpinning Skills	<ul style="list-style-type: none"> • Literacy skills to identify sources of information, to write reports and to interpret information • Communication including questioning, clarifying, reporting • Numeracy skills for basic statistical techniques and elementary probability • Research skills • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statement • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Unit	BSBMKG403A Analyse market data
------	---------------------------------------

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 2	Level 2	Level 2	Level 1	Level 1	Level 2	Level 1

Three levels of performance denote level of competency required to perform a task.

1. Perform 2. Administer 3. Design
- **Collecting, analysing and organising information** – to interpret market information
 - **Communicating ideas and information** – on the interpretation of data in report format
 - **Planning and organising activities** – to source comparative data
 - **Working with teams and others** – to collect and analyse information
 - **Using mathematical ideas and techniques** – for statistical and probability calculations
 - **Solving problems** – to analyse and correct visual presentations
 - **Using technology** – to record and analyse data if required

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

Unit	BSBSLS301A Develop product knowledge
Unit Descriptor	This unit covers the development of product knowledge as preparation for the sales process. Consider co-assessment with BSBSLS301A Develop product knowledge, BSBSLS303A Present a sales solution, BSBSLS304A Secure prospect commitment and BSBSLS306A Self-manage sales performance.
Competency Field	Business Development

Element	Performance Criteria
1. Acquire knowledge of <i>products</i> in a <i>specified area</i>	1.1 <i>Information sources</i> about <i>products</i> in a specified area are identified and evaluated for reliability and validity 1.2 Product purpose/s and use/s are identified 1.3 <i>Key features</i> of the product are identified 1.4 Product strengths and limitations are identified 1.5 Guarantees and warranties are articulated and service support details identified
2. Convert product knowledge into benefits	2.1 Features of the product which have potential buyer appeal are identified 2.2 Features of the product which have buyer appeal are presented as <i>benefits</i> 2.3 Product benefits are presented within the context of <i>organisational requirements</i> and legislation
3. Evaluate competitors' products	3.1 A range of <i>information sources</i> is used to identify competitors' products 3.2 Features of competitors' products to the buyer are identified 3.3 Potential benefits of competitors' products are identified 3.4 The <i>strengths and weaknesses</i> of competitors' products are established 3.5 The relative standing of the organisation's product with the competitor product(s) is established

Unit	BSBSLS301A Develop product knowledge
Range Statement	

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace which may include:	<ul style="list-style-type: none"> • award and enterprise agreements and relevant industrial instruments • relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • relevant industry codes of practice • ethics guidelines
The term 'product' encompasses:	<ul style="list-style-type: none"> • goods, services and/or ideas
Specified area refers to:	<ul style="list-style-type: none"> • a range of products within a particular industry which has been nominated by the employer and employee
A feature may refer to:	<ul style="list-style-type: none"> • a fact about the product which may include: <ul style="list-style-type: none"> ◦ brand ◦ country of origin ◦ colour ◦ style ◦ size ◦ manufacturer ◦ safety aspect ◦ covenant ◦ shelf life ◦ warnings ◦ product care details
A benefit refers to:	<ul style="list-style-type: none"> • the value that potential buyers place on the product features. The value is not concerned with the price of the product but is anything the prospect defines as of value
Strengths and weaknesses refers to:	<ul style="list-style-type: none"> • the capability elements of the a product to deliver benefits to potential buyers.
Information sources may include:	<ul style="list-style-type: none"> • other company personnel • catalogues • associations • trade association magazines • trade shows • sales conventions • claims of competitive sales people • competitors' sales literature • competitor websites • internal sales data records • external sales data sources e.g. warehouse withdrawals
Organisational requirements refers to:	<ul style="list-style-type: none"> • policy and procedures which are formally documented and are available for reference within the workplace • the level of client service required
Occupational health and safety considerations may include:	<ul style="list-style-type: none"> • following policies and procedures relating to remote / isolated work, workplace layout and operation of plant, equipment and hazardous substances

Unit	BSBSLS301A Develop product knowledge
Evidence Guide	

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Demonstration of product knowledge pertaining to both the organisation's and competitors' products in a specified area.
<p>Underpinning Knowledge*</p> <p>* At this level the learner must demonstrate some relevant theoretical knowledge.</p>	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Organisation's products • Buying and selling processes • The organisation's structure • Organisational requirements, including policy and procedures • Key competitors and their products • Industry trends and developments • Potential buyer markets
Underpinning Skills	<ul style="list-style-type: none"> • Literacy skills to interpret legal requirements, product labelling and description and organisational requirements • Sales data interpretation skills • Ability to obtain information from a variety of verbal and non-verbal sources • Information management skills, including the ability to summarise information verbally and non-verbally • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statement • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Unit	BSBSLS301A Develop product knowledge
------	--

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 2	Level 1	Level 1	Level 1	Level 2	Level 1	Level 1

Three levels of performance denote level of competency required to perform a task.

1. Perform 2. Administer 3. Design
- **Collecting, analysing and organising information** to prepare a pocket chart which shows product features and potential benefits
 - **Communicating ideas and information** through verbally summarising major product features and benefits
 - **Planning and organising activities** through conducting an information gathering exercise using multiple sources
 - **Working with teams and others** by discussing with others in the organisation industry trends and developments
 - **Using mathematical ideas and techniques** by examining and interpreting sales data
 - **Solving problems** by deciding how best to respond to recognised product limitations when questioned by a buyer
 - **Using technology** through obtaining product information via an internet search

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

Unit	BSBSLS302A Identify sales prospects
Unit Descriptor	This unit covers identification of potential sales prospects through application of prospecting methods.
Competency Field	Business Development

Element	Performance Criteria
1. Employ <i>prospecting</i> methods	1.1 A range of <i>prospecting methods</i> are identified 1.2 Both primary and secondary prospecting methods are examined 1.3 The strengths and limitations of prospecting methods are considered and evaluated 1.4 Prospecting methods selected match the market toward which the product is targeted 1.5 Present, previous and new <i>clients</i> are targeted through chosen prospecting methods
2. Qualify prospects	2.1 Criteria for qualifying leads are researched and established 2.2 Criteria established include buyer accessibility, <i>buyer motives</i> , and <i>product</i> affordability, purchase authority, legal compliance and return for the seller 2.3 The established criteria represent a standard against which the buying potential of individuals and groups is gauged
3. Manage prospect information	3.1 A system to record prospect information is developed 3.2 The system for recording prospect information is implemented 3.3 The system for recording prospect information is monitored for effectiveness 3.4 The system for recording prospect information is evaluated 3.5 The system for recording prospect information is refined based on evaluation

Unit	BSBSLS302A Identify sales prospects
Range Statement	

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace which may include:

- award and enterprise agreements and relevant industrial instruments
- relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- relevant industry codes of practice
- ethics guidelines

The term client refers to:

- Client is used as the generic description for a person or organisation who receives (or has the potential to receive) products, services or ideas supplied by the organisation. The term “client” may be translated according to the user’s context as “customer”, “consumer”, “member”, “patient”, or other title.

The term ‘product’ encompasses:

- goods, services and/or ideas

Buyer motives may include:

- housekeeping
- gift
- replacement item
- self-gratification
- self reward
- browsing
- buying for unqualified prospect e.g. dependant

Prospecting refers to:

- a continuous process of gathering the names of potential buyers who are likely to be interested in purchasing the salesperson’s product

Occupational health and safety considerations may include:

- following policies and procedures relating to remote / isolated work, occupational violence, stress management (work systems)

Prospecting methods may include:

- referrals
- networking
- personal observation
- intra organisation leads
- spotters
- cold canvassing
- direct mail
- media advertising
- telemarketing
- journals
- magazines
- newspapers
- public records
- internet
- databases
- brokers

Unit	BSBSLS302A Identify sales prospects
Evidence Guide	

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Use and management of prospecting information which converts sales prospects into clients
Underpinning Knowledge* * At this level the learner must demonstrate some relevant theoretical knowledge.	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Organisation's products and services • Buying and selling processes • The organisation's structure • Organisational requirements, including policy and procedures • Key competitors and their products • Industry trends and developments • Buyer motives • Range of prospecting methods, and prospect information management strategies • Prospecting as a key component of the overall sales process • Familiarity with range of buyer motives
Underpinning Skills	<ul style="list-style-type: none"> • Use of internet and other technology to locate prospect information • Literacy skills to interpret legal requirements, company policies and procedures • Ability to design and recording formats to facilitate information storage and retrieval • Interpretation of numerical data associated with prospects • Use of technology to store and manage prospect information • Ability to apply analytical skills in relating products to prospects' requirements • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statement • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Unit	BSBSLS302A Identify sales prospects
------	--

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 2	Level 2	Level 1	Level 1	Level 1	Level 1	Level 1

Three levels of performance denote level of competency required to perform a task.

1. Perform 2. Administer 3. Design

- **Collecting, analysing and organising information** by using a range of information sources to determine key prospects
- **Communicating ideas and information** through listing key prospecting criteria
- **Planning and organising activities** by implementing prospecting methods to support sales
- **Working with teams and others** in developing prospecting methods
- **Using mathematical ideas and techniques** by analysing prospect statistics
- **Solving problems** by determining how best to identify and access key prospects
- **Using technology** to store and retrieve prospect information

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

Unit	BSBSLS304A Secure prospect commitment
Unit Descriptor	This unit covers the sales processes associated with securing prospect commitment to proceed with a sale. Consider co-assessment with BSBSLS301A Develop product knowledge, BSBSLS303A Present a sales solution and BSBSLS306A Self-manage sales performance.
Competency Field	Business Development
Element	Performance Criteria
1. Respond to buying signals	1.2 Verbal buying signals are identified 1.3 Non-verbal buying signals are identified 1.4 Verbal and non-verbal buying signals are assessed 1.5 A decision is made as to whether to respond to a buying signal by closing the sale 1.6 <i>Trial closes</i> are utilised to assist the buyer to make decisions on a minor points related to the product 1.7 <i>Trial closes</i> are used strategically during different stages of the sales process
2. Negotiate the sale	2.1 A <i>formal close</i> to the sales process is initiated following one or more trial closes 2.2 <i>Conditions</i> of the agreement are negotiated 2.3 A range of different strategies are assessed to close the sale 2.4 A strategy is selected to close the sale 2.5 Supportive and confirming language is utilised to support the closure of the sales process 2.6 Options for simple sales transactions are described and demonstrated to match specified situations 2.7 The prospect's decision to purchase is responded to in an assertive manner
3. Finalise the agreement	3.1 A summary of the agreement is outlined to the buyer 3.2 The decision of the buyer is confirmed 3.3 Process and completion of the sales transaction comply with organisational requirements 3.4 Sales document is prepared and completed 3.5 Advice on financing arrangements is accurate, matches the client's financial situation, and complies with organisational requirements 3.6 Cross selling opportunities are identified and presented to the buyer 3.7 A desire to continue the sales relationship is expressed

Unit	BSBSLS304A Secure prospect commitment
Range Statement	

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace which may include:	<ul style="list-style-type: none"> • award and enterprise agreements and relevant industrial instruments • relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • relevant industry codes of practice • ethics guidelines
The term 'product' encompasses:	<ul style="list-style-type: none"> • goods, services and/or ideas
Buying signals:	<ul style="list-style-type: none"> • are verbal and non-verbal indications that the prospect is interested in the product and is preparing to make a decision about the purchase of the product. Buyer signals can be personal (which relate to one's own preferences) or organisational (where a buyer is purchasing on behalf of an organisation)
Buying signals may include:	<ul style="list-style-type: none"> • questions • confirmations, • statement of requirement by prospect • smiling and nodding • moving closer to where a product is to be installed • close examination of the product by the prospect
Trial closes refers to:	<ul style="list-style-type: none"> • a prospect's commitment on a minor point related to sale of the product that might lead to closing the sale. Trial closes may be initiated after anytime a prospect shows strong interest in the product or after a buying signal is recognised.
Trial closes may include:	<ul style="list-style-type: none"> • a question or paraphrase that focuses the interaction.
A formal close refers to:	<ul style="list-style-type: none"> • a request by the salesperson to the prospect to agree to purchase the product
A formal close may include:	<ul style="list-style-type: none"> • summary of the benefits, inducement, narrative close, offering alternative choices
Conditions may include:	<ul style="list-style-type: none"> • price, delivery, payment options, client loyalty, length of contract.

Unit	BSBSLS304A Secure prospect commitment
Evidence Guide	

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Buyer signals are recognised and responded to in order to secure prospect commitment to purchasing the product
Underpinning Knowledge* * At this level the learner must demonstrate some relevant theoretical knowledge.	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Sales closure techniques, and situations in which it is appropriate to attempt closure • Detailed product knowledge including features, advantages and benefits
Underpinning Skills	<ul style="list-style-type: none"> • Client service skills, especially the ability to determine client needs and preferences • Negotiation and conflict resolution skills • Use of persuasive and assertive language in promoting product features and benefits • Ability to interpret and respond to verbal and non-verbal cues • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statement • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Unit	BSBSLS304A Secure prospect commitment
------	---

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 1	Level 2	Level 1	Level 1	Level 1	Level 1	Level 1

Three levels of performance denote level of competency required to perform a task.

1. Perform 2. Administer 3. Design
- **Collecting, analysing and organising information** in reading and interpreting non-verbal and verbal buying signals
 - **Communicating ideas and information** in summarising the sales agreement
 - **Planning and organising activities** in arranging for the delivery of a product
 - **Working with teams and others** in checking and confirming product availability
 - **Using mathematical ideas and techniques** in estimating and calculating discounts
 - **Solving problems** in determining the optimal stage in the sales process to initiate closure
 - **Using technology** in completing sales transactions

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

Unit	BSBSLS306A Self-manage sales performance
Unit Descriptor	This unit covers self-management of sales performance through establishment of an individualised sales plan, and through management of stress, time, and sales-related paperwork. Consider co-assessment with BSBSLS301A Develop product knowledge, BSBSLS303A Present a sales solution, BSBSLS304A Secure prospect commitment and BSBSLS305A Support post-sale activities.
Competency Field	Business Development

Element	Performance Criteria
1. Establish an individualised sales plan	1.1 Individual sales goals and quotas are established to focus work activities 1.2 Consultation / communication structures are established 1.3 An individualised sales plan is established to achieve sales goals and quotas within a work system that prevents adverse effects on health and safety, and is constructed against clear timeframes 1.4 The sales plan is monitored in relation to established goals and quotas 1.5 The sales plan is adjusted in response to monitoring 1.6 An evaluation of the sales plan is conducted and adjustments are made in response to evaluation
2. Manage stress	2.1 Consultative strategies are established in accordance with organisational policy and procedures 2.2 Symptoms of <i>negative stress</i> are monitored 2.3 A plan is established in accordance with organisational requirements to reduce <i>symptoms of negative stress</i> 2.4 Routines are established to provide structure for work and to manage workload 2.5 Time is allocated for unanticipated events and activities 2.6 Tasks are delegated to individuals to share workload in accordance with organisational requirements
3. Manage time	3.1 Priority is given to activities related directly to selling 3.2 An analysis of the time spent on work related activities is conducted 3.3 Time spent on specific <i>work tasks</i> is adjusted as a consequence of analysis 3.4 Time management strategies are applied to minimise non-productive sales activities
4. Manage paperwork and reports	4.1 A system is established to collect, record and organise data associated with the sales process 4.2 Routine reports are completed at regular intervals in accordance with organisational requirements 4.3 <i>Available technology</i> is utilised to facilitate record keeping and production of sales reports

Unit	BSBSLS306A Self-manage sales performance
Range Statement	

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace which may include:	<ul style="list-style-type: none"> • award and enterprise agreements and relevant industrial instruments • relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • relevant industry codes of practice • ethics guidelines
Negative stress may arise in a sales environment due to:	<ul style="list-style-type: none"> • social, psychological, or physical situations that salespeople believe are beyond their control
Symptoms of negative stress include:	<ul style="list-style-type: none"> • anxiety • nervousness • worry or fear; fears of criticism or disapproval; difficulty concentrating; feeling tired • weak or easily exhausted; feeling tense or “on edge”; trembling or shaking; restlessness
Work tasks may include:	<ul style="list-style-type: none"> • face to face selling • service calls • administrative tasks • travelling • sales preparation
Available technology may include:	<ul style="list-style-type: none"> • email • databases • spreadsheets • word processing software packages • other computer applications
Occupational health and safety considerations may include:	<ul style="list-style-type: none"> • workgroup consultative arrangements • time and stress management policies and practices • communication strategies and support • isolated / remote work procedures / policies • work and time allocation in accordance with safe systems of work

Unit	BSBSLS306A Self-manage sales performance
Evidence Guide	

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Self-management processes are implemented to minimise stress and enhance individual sales performance
Underpinning Knowledge* * At this level the learner must demonstrate some relevant theoretical knowledge.	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Organisation's policies and procedures • Goal setting processes and its place in development of individualised sales plans • Key principles associated with self-management • Stress management strategies and techniques
Underpinning Skills	<ul style="list-style-type: none"> • Ability to set goals and quotas to facilitate professional self-improvement • Ability to set priorities, to improve time management skills • Self-evaluation skills including the ability to solicit and respond to feedback • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statement • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Unit		BSBSLS306A Self-manage sales performance				
Key Competency Levels						
<i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 1	Level 1	Level 1	Level 1	Level 1	Level 2	Level 1
<p>Three levels of performance denote level of competency required to perform a task.</p> <p>1. Perform 2. Administer 3. Design</p> <ul style="list-style-type: none"> • Collecting, analysing and organising information to support the development of sales goals • Communicating ideas and information through preparation of a sales report • Planning and organising activities in planning an individualised sales plan • Working with teams and others in soliciting and receiving feedback from present and past clients • Using mathematical ideas and techniques in determining sales quotas • Solving problems in reviewing and developing improved sales strategies to facilitate attainment of quotas • Using technology to prepare graphical representations of individual sales performance <p>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</p>						

Unit	WRRS.1A Sell Products and Services
Unit Description	This unit involves the use of sales techniques and encompasses the key selling skills from approaching the customer to closing the sale. It requires a basic level of product knowledge.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
Apply Product Knowledge	<p>Knowledge of the use and application of relevant products and services demonstrated.</p> <p>Experienced sales staff or product information guide consulted to increase product knowledge.</p>
Approach Customer	<p>Timing of customer approach determined and applied.</p> <p>Effective sales approach identified and applied.</p> <p>Positive impression conveyed to arouse customer interest.</p> <p>Knowledge of customer buying behaviour demonstrated.</p> <p>Customer focused on specific merchandise.</p>
Gather Information	<p>Questioning techniques applied to determine customer buying motives.</p> <p>Listening skills used to determine customer requirements.</p> <p>Non-verbal communication cues interpreted and clarified.</p> <p>Customers identified by name where possible.</p>
Sell Benefits	<p>Customer needs matched to appropriate products and services.</p> <p>Knowledge of products' features and benefits communicated clearly to customers.</p> <p>Product use and safety requirements described to customers.</p> <p>Customers referred to appropriate product specialist as required.</p> <p>Routine customer questions about merchandise, eg. price, price reductions, quality, usage, are answered accurately and honestly or referred to more experienced senior sales staff.</p>
Overcome Objections	<p>Customer objections identified and accepted.</p> <p>Objections categorised into price, time and merchandise characteristics.</p> <p>Solutions offered according to store policy.</p> <p>Problem solving applied to overcome customer objections.</p>
Close Sale	<p>Customer buying signals monitored, identified and responded to appropriately.</p> <p>Customer encouraged to make purchase decisions.</p> <p>Appropriate method of closing sale selected and applied.</p>
Maximise Sales Opportunities	<p>Opportunities for making additional sales recognised and applied.</p> <p>Customer advised of complementary products or services according to customer's identified need.</p> <p>Personal sales outcomes reviewed to maximise future sales.</p>

Unit	WRRS.1A	Sell Products and Services
------	----------------	-----------------------------------

RANGE OF VARIABLES

The Range of Variables section provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

The following variables may be present:

Store policy and procedures in regard to selling products and services.

Size, type and location of store.

Store merchandise range.

Store service range.

Store sales approach.

Product knowledge may include warranties, corresponding benefits of various products, use-by dates, storage requirements and stock availability.

Customers with routine or special requests.

Regular and new customers.

Selling may be face to face or by telephone.

Customers may include people from a range of social, cultural or ethnic backgrounds and physical and mental abilities.

Levels of staffing, eg. staff shortages.

Varying levels of staff training.

Routine or busy trading conditions.

Full-time, part-time or casual staff.

Customer lists.

Handling techniques may vary according to stock characteristics and industry codes of practice.

EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the unit in the workplace and/or training program.

Critical Aspects of Evidence

applying product knowledge and using an appropriate sales approach to sell the benefits of products, overcome objections and close sales

Evidence of the following knowledge and skills is considered essential to demonstrate competency in this unit:

using questioning, listening and observation skills to accurately determine customer requirements

consistently applying store policies and procedures, in regard to selling products and services maximising sales opportunities according to store policies and procedures

consistently applying industry codes of practice, relevant legislation and statutory requirements in regard to selling products and services

evaluating personal sales performance to maximise future sales.

Unit	WRRS.1A Sell Products and Services
------	--

EVIDENCE GUIDE (cont)

Underpinning Knowledge and Skills

The following knowledge, understanding and skills are essential to perform work to the required standard in this unit.

Operational knowledge of store policies and procedures, in regard to:
selling products and services
allocated duties and responsibilities.

Knowledge of store merchandise and service range.

Specific product knowledge for area/section.

Basic operational knowledge of relevant:
legislation and statutory requirements, including consumer law

industry codes of practice, including:

Supermarket Scanning Code

Jewellery and Timepieces Industry Code

Operational skills and techniques in:
verbal and non verbal communications

questioning/listening/observation

handling difficult customers

negotiating

problem solving

sales performance appreciation

Basic knowledge and understanding of customer types and needs, including:
customer buying motives

customer behaviour and cues

individual and cultural differences

demographics/lifestyle/income

types of customer needs, eg. functional, psychological.

Selling skills, including:

opening techniques

buying signals

strategies to focus customer on specific merchandise

add ons and complimentary sales

overcoming customer objections

closing techniques.

Literacy skills in regard to:

reading and understanding product information

reading and understanding store policies and procedures

recording information

Numeracy skills in regard to handling of tender, weighing and measuring goods

Unit	WRRS.1A	Sell Products and Services
------	----------------	-----------------------------------

EVIDENCE GUIDE (cont)

Method and Context of Assessment

This section should be read in conjunction with the Qualifications, Section 3.4 and the Assessment Guidelines, Section 3 of the *National Retail Training Package-WRR97*.

What assessment is appropriate, what evidence should be gathered, how competence is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below:

Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.

Evidence should be gathered attesting to the achievement of competence by the candidate to the standard required for each element and unit of competency.

Evidence is best gathered using the products, processes and procedures of the individual workplace context as the means by which the candidate achieves retail industry competencies.

In order to ensure consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of retail situations.

Elements of competency contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed either in a work or simulated work environment.

Assessment activities may also include written or verbal short answer testing, multiple choice testing, practical exercises, role plays, research/project work or observation of practical demonstration.

Unit Assessment

Evidence is most relevant when provided through an holistic assessment activity which integrates the elements of competency for each unit.

The unit assessment activity will require the candidate to gather evidence of ability to:
apply knowledge and skills which underpin the process required to demonstrate competence,
including the appropriate key competencies

integrate knowledge and skills critical to demonstrating competence in this unit.

In the activity for WRRS.1A: Sell Products and Services, the candidate will demonstrate the ability to develop and communicate specified product knowledge to a range of customers and encourage sales opportunities by matching customer needs to features and benefits of the product.

Unit assessment exemplars are available in the *Guide to Assessment Activities* for Certificate II in Retail Operations.

Unit	WRRS.1A Sell Products and Services
------	--

EVIDENCE GUIDE (cont)

Interdependent Assessment of Units (Integrated Competency Assessment)

The pattern and selection of units of competency for the Certificate II in Retail Operations are set out in the Qualifications, Section 3.4 of the *National Retail Training Package-WRR97*.

To facilitate the assessment process within each qualification, units of competency have been grouped into phases of inter-related units. Each phase is assessed through an Integrated Competency Assessment activity to assure that appropriate holistic assessment occurs for each group of inter-related units of competency.

Unit WRRS.1A: Sell Products and Services is a Phase C1 and a Phase C2 unit within Certificate II in Retail Operations. Phase C1 and Phase C2 are elective streams.

Refer to the Qualifications, Section 3.4, for the other Phase C1 and Phase C2 units.

Each Integrated Competency Assessment activity is based on a theme which focuses the assessment on those aspects of the phase considered to be most critical for competent workplace performance.

When each unit of competency in Phase C1 or Phase C2 has been completed the candidate will undertake an Integrated Competency Assessment based on one of the themes:

Phase C1: *Promoting Products So That They Sell*

Phase C2: *Promoting Fresh Food Products So That They Sell*

The Integrated Competency Assessment activity will require the candidate to: apply the skills and knowledge which underpin the process required to demonstrate competency in the workplace, including the appropriate key competencies

integrate the most critical aspects of the phase for which workplace competency must be demonstrated.

The assessment will integrate those aspects of Unit WRRS.1A: Sell Products and Services which are critical to the theme of *Promoting Products (or Fresh Food Products) So That They Sell* in order to demonstrate the acquisition of knowledge and skills in promoting, displaying, providing information and selling the products and services of the candidate's workplace.

The evidence should be gathered during learning and assessment activities for each unit of competency within Phase C1 or Phase C2.

Integrated Competency Assessment exemplars are available in the *Guide to Assessment Activities* for Certificate II in Retail Operations.

Resource Implications

This refers to the resources that are necessary for undertaking the assessment.

All resources must be provided for the assessment. If workplace based, the resources should relate specifically to store policies, procedures and range of stock and equipment. If an off the job or simulated work environment is used then resources should be generic and be applicable to a wide variety of stores/work environments. Resources may include:

a real or simulated retail environment
access to a range of customers with different requirements (real or simulated)

relevant documentation, such as

- stock/inventory/price lists
- sales order forms
- store policy and procedures manuals

a range of merchandise and products appropriate to the retail workplace

product labels and sources of product information.

qualified workplace assessor.

Unit	WRRS.1A	Sell Products and Services
------	----------------	-----------------------------------

Key Competencies

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing & organising information	Communicating ideas & information	Planning & organising activities	Working with others and in teams	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	

Note: The Key Competencies whose levels are in shaded boxes require explicit emphasis

Unit	WRRS.3A Co-ordinate Sales Performance
Unit description	This unit requires a level of competency which involves the responsibility for ensuring that the sales performance of the sales team meets the store requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
Implement Sales Policies and Procedures	<p>Store policies and procedures in regard to selling implemented and monitored.</p> <p>Store policies and procedures implemented and monitored in regard to sales transactions, including non-cash sales, and variations to standard sales transactions.</p> <p>Team monitored to ensure information is entered into point of sale equipment accurately.</p> <p>Team monitored to ensure goods are moved through point of sale area efficiently and safely.</p> <p>Team monitored to ensure that products and services are matched to customer needs.</p>
Monitor Achievement of Sales Targets	<p>Individual and department sales targets monitored and recorded according to store policy.</p> <p>Store sales results monitored and recorded in line with sales targets.</p> <p>Feedback provided to management and staff on sales performance in relation to sales targets and planning.</p>

Unit	WRRS.3A	Co-ordinate Sales Performance
------	----------------	--------------------------------------

RANGE OF VARIABLES

The Range of Variables section provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

The following variables may be present:

Store policies and procedures in regard to selling products and services and sales transactions.

Size, type and location of store.

Store/department sales targets.

Sales targets may vary according to experience and training of staff.

Store merchandise range.

Handling techniques may vary according to stock characteristics and industry codes of practice.

Store services range.

Product knowledge.

Product information training.

Customers with special requests, special needs and routine requirements.

Regular and new customers.

Customers may include people from a range of social, cultural or ethnic backgrounds and physical and mental abilities.

Selling may include face to face or telephone sales techniques.

Teams may represent department or store.

Levels of staffing, eg. staff shortages.

Routine or busy trading conditions.

Full-time, part-time or casual staff.

Unit	WRRS.3A	Co-ordinate Sales Performance
------	----------------	--------------------------------------

EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the unit in the workplace and/or training program.

This unit assumes and builds on competency in Unit WRRS.1A: Sell Products and Services and Unit WRRS.2A: Advise on Products and Services.

Critical Aspects of Evidence

Evidence of the following knowledge and skills is considered essential to demonstrate competency in this unit:

- consistently applying store policies and procedures and industry codes of practice in regard to customer service and selling products and services
- implementing and monitoring store policies and procedures in relation to sales transactions, including non-cash sales, and variations to standard sales transactions
- monitoring and providing feedback to management and staff on sales performance in relation to sales targets and planning.

Unit	WRRS.3A	Co-ordinate Sales Performance
------	----------------	--------------------------------------

EVIDENCE GUIDE (cont)

Underpinning Knowledge and Skills

The following knowledge, understanding and skills are essential to perform work to the required standard in this unit.

Knowledge and application of store policies and procedures, in regard to:
external and internal customer contact
selling products and services
allocated duties and responsibilities.

Knowledge and understanding of:
store merchandise and services provided by the store
customer profile
location of store departments
store/department sales targets
factors that enhance sales performance
importance of sales to store performance
stock control procedures.

Knowledge, understanding and application of relevant:
legislation and statutory requirements including consumer law.
industry codes of practice, including:
Supermarket Scanning Code
Jewellery and Timepieces Industry Code

Knowledge of principles and techniques in interpersonal relation skills, including:
giving feedback
coaching
performance analysis
questioning/listening/observation
group presentation
team motivation
negotiation
verbal and non verbal communication
team leadership

Knowledge of principles and techniques in:
planning and organising activities
solving problems

Literary skills in regard to:
business documents
financial reports

Numeracy skills in regard to functional retail calculations, including:
margins
mark downs/mark ups
gross profit
basic budgeting against sales and costs

Unit	WRRS.3A	Co-ordinate Sales Performance
------	----------------	--------------------------------------

EVIDENCE GUIDE (cont)

Method and Context of Assessment

This section should be read in conjunction with the Qualifications, Section 3.5 and the Assessment Guidelines, Section 3 of the *National Retail Training Package-WRR97*.

What assessment is appropriate, what evidence should be gathered, how competence is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below:

Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.

The range of variables in the environment in undertaking the tasks involved in this unit would be difficult to simulate. Therefore the assessment for this unit is most effectively undertaken on the job.

Evidence should be gathered attesting to the achievement of competency by the candidate to the standard required for each element and unit of competency.

Evidence is best gathered using the products, processes and procedures of the individual workplace context as the means by which the candidate achieves retail industry competencies.

In order to ensure consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of retail situations.

Elements of competency contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed in a work environment.

Assessment activities may also include written or verbal short answer testing, multiple choice testing, practical exercises, role plays, research/project work or observation of practical demonstration.

Unit Assessment

Evidence is most relevant when provided through an holistic assessment activity which integrates the elements of competency for each unit.

The unit assessment activity will require the candidate to gather evidence of ability to:

apply knowledge and skills which underpin the process required to demonstrate competence including the appropriate key competencies

integrate knowledge and skills critical to demonstrating competence in this unit

In the activity for WRRS.3A: Co-ordinate Sales Performance, the candidate will demonstrate the ability to monitor performance of a sales team in the areas of store policy and procedures for sales/transactions, individual and departmental sales targets, selling and point of sale operations.

Unit assessment exemplars are available in the *Guide to Assessment Activities* for Certificate III in Retail Operations.

Unit	WRRS.3A	Co-ordinate Sales Performance
------	----------------	--------------------------------------

EVIDENCE GUIDE (cont)

Interdependent Assessment of Units (Integrated Competency Assessment)

The pattern and selection of units of competency for Certificate III in Retail Operations are set out in the Qualifications, Section 3.5 of the *National Retail Training Package-WRR97*.

To facilitate the assessment process within each qualification, units of competency have been grouped into phases of interrelated units. Each phase is assessed through an Integrated Competency Assessment activity to assure that appropriate holistic assessment occurs for each group of interrelated units of competency.

Unit WRRS.3A Co-ordinate Sales Performance is either a Phase C or a Phase D unit within Certificate III in Retail Operations. Phase C and Phase D are elective streams.

Refer to the Qualifications, Section 3.5 for the other Phase C and Phase D units.

Each Integrated Competency Assessment activity is based on a theme which focuses the assessment on those aspects of the phase considered to be most critical for competent workplace performance.

When each unit of competency in either Phase C or Phase D has been completed, the candidate will undertake an Integrated Competency Assessment based on the theme for that phase:

Phase C: *Developing and Recognising Retail Skills*.

Phase D: *Co-ordinating in a Retail Environment*

The Integrated Competency Assessment activity will require the candidate to: apply the skills and knowledge which underpin the process required to demonstrate competency in the workplace, including the appropriate key competencies integrate the most critical aspects of the phase for which workplace competency must be demonstrated.

The assessment will integrate those aspects of Unit WRRS.3A Co-ordinate Sales Performance, which are critical to either the theme of Phase C or the theme of Phase D.

The Phase C theme, *Developing and Recognising Retail Skills*, requires the candidate to demonstrate an ability to develop, deliver and assess the effectiveness of a training program which is based on and relates the selected coordination and specialist elective units to the workplace situation.

The Phase D theme, *Coordinating in a Retail Environment*, requires the candidate to demonstrate an ability to coordinate a team within the elected functional areas of supervision, stock and/or recommending products and services. The details of the Integrated Competency Assessment should be negotiated with the qualified assessor according to the candidate's choice of elective units and role in the workplace.

Evidence relevant to the Integrated Competency Assessment should be gathered during learning and assessment activities for each unit of competency within either Phase C or Phase D.

Integrated Competency Assessment exemplars are available in the *Guide to Assessment Activities* for Certificate III in Retail Operations.

Unit	WRRS.3A	Co-ordinate Sales Performance
------	----------------	--------------------------------------

EVIDENCE GUIDE (cont)

Resource Implications

This refers to the resources that are necessary for undertaking the assessment.

All resources must be provided for the assessment. The resources should relate specifically to store policies, procedures and range of stock and equipment. Resources may include:
a retail environment

relevant documentation, such as:

- stock/inventory lists
- price lists
- store policy and procedure manuals
- individual/department sales targets and results
- reporting proformas
- legislation and statutory requirements, including consumer law
- industry codes of practice, including:
 - . Supermarket Scanning Code, and
 - . Jewellery and Timepieces Industry Code

access to a sales team

point of sale equipment and materials

qualified workplace assessor.

Key Competencies

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing & organising information	Communicating ideas & information	Planning & organising activities	Working with others and in teams	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

Note: The Key Competencies whose levels are in shaded boxes require explicit emphasis

Unit	WRRSS.9A Recommend Computer Products and Services
Unit description	This unit builds on unit S.2 Advise on Products and Services. It involves the application of computer product knowledge to advise customers and other sales staff with regard to computer hardware, software, product warranties, stock availability, price and repairs.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
Research Store Computer Products Range	<p>Product knowledge developed by accessing store or computer trade product manuals, brochures, computer magazines/books, self tutorial software programs, on-line help, sales representatives, trade shows, seminars and manufacturers product nights and customer feedback.</p> <p>Products correctly identified according to type, brand options, quality, design features, operating systems, safety features and price range.</p> <p>Knowledge and application of manufacturers information and computer terminology including architectural structure, software and internet requirements, memory and system configurations developed</p> <p>Operation of store products accurately demonstrated according to store policy.</p> <p>Knowledge of relevant licensing and copyright laws accurately demonstrated.</p>
Recommend Computer Hardware and Software Products	<p>Customers needs identified in terms of usage requirements, software applications, interests, skill level and price range.</p> <p>Technical features and benefits from manufacturers specifications accurately conveyed to customers to assist buying decisions.</p> <p>Operation of specific hardware or software applications demonstrated or explained to customers in a systematic manner as required to create a buying environment.</p>
Advise on Product Warranties	<p>Comparisons between product/manufacturers warranty terms and conditions for hardware and software clearly explained to customers.</p> <p>Individual product warranty terms and conditions confirmed by consulting store/manufacturers product manuals or brochures and accurately conveyed to customers.</p> <p>Customers provided with a written copy of the manufacturers warranty terms and conditions for product/s purchased wherever possible, according to store policies and procedures.</p>
Negotiate Price and Payment Options	<p>Store recommended retail pricing for various brand options accurately conveyed to customers.</p> <p>Individual product prices negotiated where necessary according to store policy to achieve a sale.</p> <p>Store payment options accurately conveyed to customers and a preferred option negotiated following store procedures.</p>

Unit	WRRSS.9A Recommend Computer Products and Services
ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
<p>Advise on and Arrange Product Service and Repairs</p>	<p>Customer questioned to determine nature of problem.</p> <p>Problem diagnosed in terms of operator/hardware/software faults by accessing manufacturers information.</p> <p>Solutions offered according to nature of problem, available product information and store policy.</p> <p>Service/repair process identified and accurately described to customer as required according to store policy.</p> <p>Price and timelines for basic service/repairs identified and quoted to customer where applicable.</p> <p>Customer details identified and accurately transcribed to repair form, according to store procedures and legal requirements</p> <p>Item for repair labelled and securely stored according to store policy.</p> <p>Customer notified without undue delay on arrival/completion of service/repair.</p>

Unit	WRRSS.9A Recommend Computer Products and Services
RANGE OF VARIABLES	
<p>The Range of Variables section provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.</p>	
<p>The following variables may be present.</p>	<p>Store policies and procedures with regard to selling computer products and services</p> <p>Size type and location of store</p> <p>Store merchandise range may include: software packages including word processing, spreadsheet, games, graphics, database, corporate/business applications, entertainment, educational applications computers such as desktop - mini tower, full tower, integrated; laptop - dockable, non-dockable monitors of varying size, resolution, digital/analogue printers such as dot matrix, ink jet, laser, colour or mono scanners such as flat bed, hand held, sheet fed, colour or mono types of mouse such as bus, serial, button types of modems such as internal, external, varying speeds, fax operating systems such as MAC, DOS, WIN 3.1, WIN'95, WIN'98, etc computer accessories such as memory upgrades, video/sound cards, CD ROM, paper/printer supplies, cords/cables/fittings</p> <p>Store service range may include product service and repairs, access to internet service providers.</p> <p>Diagnosis of problems may occur face to face, by telephone or by correspondence</p> <p>Customers with routine or special requests</p> <p>Customers with special needs</p> <p>Customers may include people from a range of social, cultural or ethnic backgrounds and physical and mental abilities.</p>

Unit	WRRSS.9A Recommend Computer Products and Services
EVIDENCE GUIDE	
<p>The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the Unit of Competency and will inform and provide guidance for assessment of the unit in the workplace and/or training program.</p> <p>This unit builds on the knowledge and skills gained in Units S.1 Sell Products and Services and S.2 Advise on Products and Services and should involve the candidate in a broad range of products and services and in an environment featuring limited supervision and where the exercise of choice and judgement is required.</p>	
<p>Critical Aspects of Evidence</p>	<p>Evidence of the following knowledge and skills is considered essential to demonstrate competency in this unit:</p> <ul style="list-style-type: none"> continually updating and applying product knowledge to provide comprehensive advice to customers and staff, including technical information consistently applying store policies and procedures and industry codes of practice in regard to sales/customer service procedures advising customers and informing sales team members of quality, design features, benefits and operation/performance characteristics of store range of computers advising on stock availability, warranties and price/payment options applying problem solving strategies to assist customers with operator/hardware/software faults advising on, negotiating and arranging computer product services and repairs in accordance with store policy and procedures

Unit	WRRSS.9A Recommend Computer Products and Services
------	---

EVIDENCE GUIDE (CONTINUED)

Underpinning Knowledge and Skills

The following knowledge, understanding and skills are essential to perform work to the required standard in this unit.

Knowledge and understanding of store policies and procedures in regard to:

sales/customer service

methods of dealing with special needs/requests of customers

customer complaints

Knowledge and understanding of:

manufacturers technical information/specifications for store range of computer hardware and accessories, including laptop computers, printers, scanners, monitors, modems, hard disk drives, mouse types and CD-ROM

the Internet, including hardware/software requirements and access to service providers

store range of computer operating systems, software options and packages, including work processing, data base, spreadsheets, multimedia, games, graphics, entertainment and education

store range of computer service and repair capabilities

Knowledge, understanding and application of relevant:

legislation and statutory requirements, including consumer law

industry codes of practice

occupational health and safety legislation/regulations/codes of practice in relevant areas such as:

- Manual Handling
- Plant and Equipment
- Dangerous Goods
- Workers Compensation Code of Practice

Knowledge of principles, techniques and skills in:

communicating ideas and information, including methods of establishing rapport with customers using honesty and tact

working with others and in teams

handling customers with special needs, including difficult or abusive customers

solving problems, including assisting customers with operator/hardware/software faults

negotiating

using and applying technology, including operational features and operating/demonstrating store range of computers and accessories

Literacy skills in the following areas:

collecting, analysing and organising information from a variety of sources

preparing and organising information when gathering evidence of competency for assessment

Numeracy skills in the following areas:

application of mathematical ideas and techniques relating to computer hardware and software products

advising/negotiating price and payment options

Unit	WRRSS.9A Recommend Computer Products and Services
EVIDENCE GUIDE (CONTINUED)	
<p>Method and Context of Assessment</p>	<p>This section should be read in conjunction with the Qualifications, Section 3.5 and the Assessment Guidelines, Section 3 of the <i>National Retail Training Package</i>.</p> <p>What assessment is appropriate, what evidence should be gathered, how competence is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below:</p> <p>Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.</p> <p>The range of variables in the environment in undertaking the tasks involved in this unit would be difficult to simulate. Therefore the assessment for this unit is most effectively undertaken on the job.</p> <p>Evidence should be gathered attesting to the achievement of competence by the candidate to the standard required for each element and unit of competency.</p> <p>Evidence is best gathered using the products, processes and procedures of the individual workplace context as the means by which the candidate achieves retail industry competencies.</p> <p>In order to ensure consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of retail situations.</p> <p>Elements of competency contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed in a work environment.</p> <p>Assessment activities may also include written or verbal short answer testing, multiple choice testing, practical exercises, role plays, research/project work or observation of practical demonstration.</p>
<p>Unit Assessment</p>	<p>Evidence is most relevant when provided through an holistic assessment activity which integrates the elements of competency for each unit.</p> <p>The unit assessment activity will require the candidate to gather evidence of ability to:</p> <ul style="list-style-type: none"> apply knowledge and skills which underpin the process required to demonstrate competence including the appropriate key competencies integrate knowledge and skills critical to demonstrating competence in this unit. <p>The activity for WRRSS.9A Recommend Computer Products and Services should require the candidate to provide evidence of product knowledge over a broad range of current store computer products and services, including technical information, and demonstrate competency in advising customers on computer products and services, including demonstrating use of computers and software options, in a variety of sales situations.</p> <p>Unit assessment exemplars are available in the <i>Guide to Assessment Activities</i> for Certificate III in Retail Operations.</p>

Unit	WRRSS.9A Recommend Computer Products and Services
------	---

EVIDENCE GUIDE (CONTINUED)

Interdependent Assessment of Units (Integrated Competency Assessment)

The pattern and selection of units of competency for Certificate III in Retail Operations are set out in the Qualifications, Section 3.5 of the *National Retail Training Package*.

To facilitate the assessment process within each qualification, units of competency have been grouped into phases of interrelated units. Each phase is assessed through an Integrated Competency Assessment activity to assure that appropriate holistic assessment occurs for each group of interrelated units of competency.

Unit WRRSS.9A Recommend Computer Products and Services is either a Phase C or a Phase D unit within Certificate III in Retail Operations. Phase C and Phase D are elective streams.

Refer to the Qualifications, Section 3.5 for the other Phase C and Phase D units.

Each Integrated Competency Assessment activity is based on a theme which focuses the assessment on those aspects of the phase considered to be most critical for competent workplace performance.

When each unit of competency in either Phase C or Phase D has been completed, the candidate will undertake an Integrated Competency Assessment based on the theme for that phase:

Phase C: *Developing and Recognising Retail Skills*.

Phase D: *Coordinating in a Retail Environment*.

The Integrated Competency Assessment activity will require the candidate to: apply the skills and knowledge which underpin the process required to demonstrate competency in the workplace, including the appropriate key competencies

integrate the most critical aspects of the phase for which workplace competency must be demonstrated.

The assessment will integrate those aspects Unit WRRSS.9A Recommend Computer Products and Services, which are critical to either the theme of Phase C or the theme of Phase D.

The Phase C theme, *Developing and Recognising Retail Skills* requires the candidate to demonstrate an ability to develop, deliver and assess the effectiveness of a training program which is based on and relates the selected coordination and specialist elective units to the workplace situation.

The Phase D theme, *Coordinating in a Retail Environment* requires the candidate to demonstrate an ability to coordinate a team within the elected functional areas of supervision, stock and/or recommending products and services. The details of the Integrated Competency Assessment should be negotiated with the qualified assessor according to the candidate's choice of elective units and role in the workplace.

Evidence relevant to the Integrated Competency Assessment should be gathered during learning and assessment activities for each unit of competency within either Phase C or Phase D.

Integrated Competency Assessment exemplars are available in the *Guide to Assessment Activities* for Certificate III in Retail Operations.

Unit	WRRSS.9A Recommend Computer Products and Services
EVIDENCE GUIDE (CONTINUED)	
Resource Implications	<p>This refers to the resources that are necessary for undertaking the assessment.</p> <p>All resources must be provided for the assessment. The resources should relate specifically to store policies, procedures and range of stock and equipment.</p> <p>Resources may include: a retail environment relevant sources of product information relevant documentation, such as:</p> <ul style="list-style-type: none"> - store policy and procedures manuals - industry codes of practice and relevant legislation - occupational health and safety legislation/regulations/codes of practice in relevant areas such as: <ul style="list-style-type: none"> . Manual Handling . Plant and Equipment . Hazardous Substances . Dangerous Goods . Workers Compensation <p>access to an appropriate range of computers and computer software/accessories access to a range of customers with different requirements qualified workplace assessor</p>

Key Competencies						
This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:						
Collecting, analysing & organising information	Communicating ideas & information	Planning & organising activities	Working with others and in teams	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2
Note: The Key Competencies whose levels are in shaded boxes require explicit emphasis						

UNIT

BSBEBUS406A Monitor and maintain records in an online environment

Unit Descriptor This unit covers the identification and assessment of records for storage and the maintenance and monitoring of electronic business records.

This unit is related to BSBEBUS308A Maintain online business records.

Competency Field e-business

Element	Performance Criteria
1. Confirm requirements for record keeping in an online environment	<p>1.1 Organisational record keeping system is identified and system procedures for capturing and managing records are confirmed</p> <p>1.2 Organisational and <i>risk management</i> requirements for classifying and storing online information are identified and verified</p> <p>1.3 Legal, business, financial, socio-historical, and security requirements for recording online business transactions are identified</p> <p>1.4 An organisational checklist is prepared in accordance with <i>organisational requirements</i> for use in assessing which electronic information should be captured, for how long and in what format</p>
2. Identify and assess records for storage	<p>2.1 Incoming and outgoing information is categorised in terms of key activities and responsible personnel</p> <p>2.2 Information is assessed against organisational checklist and records identified for capture</p> <p>2.3 Information not to be stored is disposed of in accordance with organisational procedures</p> <p>2.4 <i>Storage</i> methods and <i>media</i> are determined in accordance with <i>retention requirements</i></p>
3. Monitor and maintain business records in an online environment	<p>3.1 Records are classified, sentenced and linked to other records in the system in accordance with system rules and organisational procedures</p> <p>3.2 Unique identifiers are assigned and records are registered into the record keeping system in accordance with system rules and organisational procedures</p> <p>3.3 <i>Access and security status</i>, and disposal requirements of records are determined and recorded in accordance with organisational procedures</p> <p>3.4 Records are stored on required <i>media</i> in accordance with organisational and record retention requirements</p> <p>3.5 <i>Migration</i> of records from one medium to another is carried out in accordance with organisational procedures</p> <p>3.6 Archiving or <i>disposal</i> of records is actioned and recorded in accordance with disposal schedule and organisational procedures</p> <p>3.7 Records are maintained in a usable and accessible form in accordance with security conditions and legislative requirements</p>

UNIT

BSBEBUS406A Monitor and maintain records in an online environment**Range Statement**

The Range Statement provides advice to interpret the scope and context of this unit of competence, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice and standards
- Government State/Territory/Commonwealth standards
- Freedom of Information Acts
- public Records Acts (State/Territory/Commonwealth)
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws particularly in relation to digital material (ie digital amendment)
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting business in general and e-business in particular
- records, archive management and disposal laws
- legal deposit requirements (libraries) ie copies of all published documents are usually required to go to libraries
- AS4390 Records Management
- AS9000 Quality Standards – quality records sections

Risk management requirements may include:

- policy and procedures for checking the accuracy and currency of data
- backup and recovery procedures
- secondary storage requirements
- remote storage for backup data

Organisational requirements may include:

- legal
- business
- financial
- socio-historical
- security

Storage may include:

- online
- off-line
- on-site
- off-site
- outsourced
- migration of records from one medium to another eg tape to compact disc

UNIT

BSBEBUS406A Monitor and maintain records in an online environment

- Storage media may include:**
- server
 - hard drive
 - diskette
 - computer tape
 - audiotape
 - film
 - video
 - compact disc
 - imaging systems
 - audiovisual
 - multimedia
 - mainframe
 - microform
 - paper based

- Retention requirements may include:**
- remote storage of backup data in case of fire or other incidents
 - long term storage media for information / records
 - most cost-effective storage media for ephemeral or short term records

- Access and security status may include:**
- confidential
 - high security (restricted)
 - open

- Migration of records may include:**
- from tapes, which may deteriorate over time
 - from about-to-be superseded media eg 5¼" disks

- Disposal of records may include:**
- permanent deletion from electronic media
 - destruction of paper based records eg shredding

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

- Critical Aspects of Evidence**
- Integrated demonstration of all elements of competency and their performance criteria
 - Record keeping / information management principles and processes
 - Knowledge of organisational record keeping system, and policy and procedures relating to record keeping in an online/business environment
 - Access and security issues relating to record keeping in a business environment

UNIT

BSBEBUS406A Monitor and maintain records in an online environment**Underpinning Knowledge***

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Internet / World Wide Web
- Information technology skills related to record keeping
- Record keeping / information management principles and processes
- Organisational record keeping system
- Online record keeping environment including location and nature of transactions
- Policy and procedures relating to record keeping in an online environment including risk management
- Access and security issues
- Legal and regulatory requirements

Underpinning Skills

- Computer skills especially relating to record keeping systems
- Organisational skills especially attention to detail
- Literacy skills for reading and interpreting information and content of records, retention and disposal schedules, and access/security conditions, and for preparing checklist and schedules
- Communication skills to identify organisational requirements for record keeping in an online environment
- Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

Context/s of Assessment

- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
- Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
- Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
- Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

UNIT	BSBEBUS406A Monitor and maintain records in an online environment
-------------	--

Key Competency Levels		<i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>				
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 2	Level 2	Level 2	Level 1	Level 2	Level 1
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to identify and assess information, to aid decision making on classification and storage of records and to maintain and monitor records in an online environment • Communicating ideas and information – to prepare checklist and schedules, delegate responsibilities and to monitor and administrate the record keeping system • Planning and organising activities – to classify, register and store records and to monitor and administrate the record keeping system • Working with teams and others – to access all incoming and outgoing information, to confirm responsibilities and to achieve cooperation to maintain and monitor records in an online environment • Using mathematical ideas and techniques – to interpret disposal schedules • Solving problems – in determining status and maintenance procedures of records and to monitor and administrate the record keeping system • Using technology – to maintain records in an online environment <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS408A Implement and monitor delivery of quality customer service online

Unit Descriptor This unit covers implementation and monitoring of online customer service policy, developing and enhancing customer relationships online, integrating customer service into business processes and continuous improvement of customer service in accordance with company policy.

This unit is related to BSBEBUS613A Develop online customer service strategies and BSBEBUS614A Build online customer loyalty. Consider co-assessment with BSBEBUS404A Trade online.

Competency Field e-business

Element	Performance Criteria
1. Implement online customer service policy	<p>1.1 Customer service strategies are implemented in accordance with organisational policy and standards for online service</p> <p>1.2 <i>Online services</i> are matched to the skill levels of <i>customers</i> and coaching/mentoring provided on or off-line to assist where necessary</p> <p>1.3 Access and security of online services is monitored and problems are rectified or notified online in accordance with organisational timelines and standards</p> <p>1.4 On and off-line communication with customers occurs in accordance with organisational requirements and the business' customer service standards</p> <p>1.5 <i>Customer difficulties and complaints</i> are resolved in accordance with customer service standards and protocols</p>
2. Develop and enhance customer relationships using online means	<p>2.1 Customer service strategies are personalised to meet individual needs in accordance with customer service standards and legal and ethical requirements</p> <p>2.2 Customer needs and preferences are analysed and opportunities for customised service assessed and implemented in accordance with customer service policy and level of authority</p>
3. Integrate online customer services into business processes	<p>3.1 Business processes and staff training to support the delivery of quality customer service online are determined and implemented in consultation with relevant personnel</p> <p>3.2 <i>Operational areas</i> of the business impacting on the delivery of quality customer service online are identified, and complementary procedures implemented to enable their integration in accordance with online customer service policy</p>
4. Monitor and continuously improve online customer services	<p>4.1 Regular feedback is gathered from online customer communications to gauge levels of satisfaction to complement formal feedback procedures</p> <p>4.2 <i>Customer service feedback</i> is recorded, analysed and reported in accordance with organisational requirements</p> <p>4.3 Business processes / suggestions identified in customer feedback are reviewed and recommendations made for improved services in accordance with customer service policy and procedures</p> <p>4.4 New and improved services are identified and recommended in response to customer and staff input in accordance with organisational policy and procedures</p> <p>4.5 The effectiveness of competitors' solutions / customer service strategies are analysed and new technology or e-business solutions are identified for clients</p>

UNIT

BSBEBUS408A Implement and monitor delivery of quality customer service online**Range Statement**

The Range Statement provides advice to interpret the scope and context of this unit of competence, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

- | | |
|---|---|
| Legislation, codes and national standards relevant to the workplace may include: | <ul style="list-style-type: none"> • award and enterprise agreements • national, State/Territory legislative requirements especially in regard to Occupational Health and Safety • industry codes of practice • OECD International Guidelines for Consumer Protection in E-Commerce • copyright laws • defamation laws • privacy legislation • intellectual property, confidentiality requirements • legal and regulatory policies affecting e-business • net etiquette |
| e-business is: | <ul style="list-style-type: none"> • every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in <u>E-competent Australia</u>, ANTA, May 2000) |
| Online services may include: | <ul style="list-style-type: none"> • online registration • access to product database by customers online • online ordering • online payments • access to purchase, delivery and account records online • two-way communication online • quick / reasonable response • call / contact centre |
| Customers may include: | <ul style="list-style-type: none"> • internal • external |

UNIT

BSBEBUS408A Implement and monitor delivery of quality customer service online**Customer difficulties and complaints may include:**

- difficulty accessing services
- customer dissatisfaction with service quality
- services not available
- unfriendly website design
- website faults
- inactive links
- time taken to access services
- administrative errors such as incorrect invoices or prices
- supply errors such as incorrect product delivered
- service errors
- delivery errors
- products not delivered on time
- damaged goods or goods not delivered
- not appreciating differing hardware and software

Operational areas may include:

- marketing and sales
- administration
- accounting
- service support
- procurement

Customer service feedback may include:

- positive and negative comments made in online communications
- responses via online feedback mechanisms
- telephone
- face-to-face
- letters
- emails
- secondhand feedback
- increase in sales results etc through e-business

UNIT

BSBEBUS408A Implement and monitor delivery of quality customer service online**Evidence Guide**

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Personalised and customised services continue to meet legal and ethical requirements and online customer service standards
<p>* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency</p> <p>Underpinning Knowledge*</p>	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Internet / World Wide Web • e-business culture • e-business terminology • Principles of customer service and its application to an online environment • Customer concerns with online business • Techniques for dealing with customers with special needs • Legal and ethical requirements
Underpinning Skills	<ul style="list-style-type: none"> • Computer skills for online communication • Literacy skills to interpret requirements and personalise / customise responses • Communication skills, including negotiation and conflict resolution, to resolve customer difficulties and complaints • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

UNIT

BSBEBUS408A Implement and monitor delivery of quality customer service online**Key Competency Levels**

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 2	Level 3	Level 1	Level 2	Level 2

Three levels of performance denote level of competency required to perform a task.

1. Perform
 2. Administer
 3. Design
- **Collecting, analysing and organising information** – to gauge customer needs and requirements and to measure customer satisfaction in support of continuous improvement policies
 - **Communicating ideas and information** – to identify customer needs and requirements, to improve customer satisfaction and assisting online customers
 - **Planning and organising activities** – to monitor and continuously improve online customer service and integrate online customer services with business operations
 - **Working with teams and others** – to improve integration of online customer services with business processes and to improve online customer service through staff training and use of feedback from customers and team members
 - **Using mathematical ideas and techniques** – to analyse feedback data
 - **Solving problems** – to deliver quality online customer service while resolving customer difficulties and complaints
 - **Using technology** – to provide online customer service

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

UNIT

BSBEBUS501A Evaluate e-business opportunities**Unit Descriptor**

This unit covers evaluation of the impact of e-business for an industry sector, new opportunities or capabilities provided by the Internet, threats and opportunities related to e-business, and risks / obstacles to be overcome to take advantage of e-business opportunities.

This unit is related to BSBEBUS601A Develop an e-business strategy. Consider co-assessment with BSBEBUS502A Evaluate e-business models and BSBEBUS503A Design an e-business.

Competency Field

e-business

Element**Performance Criteria**

- | | |
|---|---|
| 1. Analyse the external e-business environment | 1.1 The extent of e-business and its applications are identified
1.2 The current or likely effect of e-business on key sectors of the economy which impact on the business, is evaluated
1.3 The impact of e-business in the business' industry sector is researched and evaluated
1.4 A competitive analysis of existing and potential competitors and allies in e-business is undertaken
1.5 The likely impact of embracing e-business solutions is estimated for the business using valid and reliable information sources
1.6 The potential impact of foreign and domestic government legislation is evaluated |
| 2. Analyse the business' capabilities in relation to e-business | 2.1 The business' existing resources and core competencies are evaluated to identify competitive advantage
2.2 Value chain analysis is completed across the organisation to identify processes and relationships that may benefit from the adoption of e-business solutions
2.3 Threats and opportunities for the business related to the introduction of e-business solutions are identified
2.4 Implications for the value chain of adopting e-business solutions are assessed
2.5 Risks and obstacles in implementing e-business solutions are evaluated and ways to deal with them identified
2.6 Resource analysis is conducted to identify cost and revenue implications in developing opportunities |

UNIT

BSBEBUS501A Evaluate e-business opportunities

- | | |
|--------------------------------------|---|
| 3. Evaluate e-business opportunities | 3.1 New capabilities provided by the Internet and other forms of e-business are identified through research and consultation and possible changes to the business and its culture are evaluated |
| | 3.2 New e-business opportunities are identified and evaluated in terms of their compatibility with business goals and direction and their likely contribution to the business |
| | 3.3 Legal and ethical issues relating to e-business opportunities are identified and evaluated |
| | 3.4 The impact of the international nature of e-business is evaluated for each business opportunity |
| | 3.5 The viability of making changes to current operations to take advantage of e-business opportunities is determined through cost-benefit analysis |
| | 3.6 Timeframes required for implementation are evaluated for e-business opportunities |

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- defamation laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business
- Internet codes of practice

e-business is:

- every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (A definition of e-business in E-competent Australia, ANTA, May 2000)

Processes and relationships may include:

- organisation structures
- customer service
- delivery of core services
- delivery of products
- delivery of Government services
- trading communities
- development of new products, services and markets

UNIT

BSBEBUS501A Evaluate e-business opportunities

- Value chain analysis is:**
- an analysis of a series of primary activities, such as:
 - inbound logistics
 - operations
 - outbound logistics
 - marketing and sales
 - service support
 - and their support activities, such as:
 - business infrastructure
 - human resource management
 - technological development
 - procurement

- Threats and opportunities may include:**
- business-to-business (B2B) opportunities where e-business is conducted between companies
 - business-to-consumer (B2C) opportunities where e-business is conducted between an enterprise and a customer
 - business to Government (B2G) opportunities where e-business is conducted between an enterprise and the government
 - disintermediation threats/opportunities where the role of ‘middlemen’ or other middle supply chain elements is reduced or made redundant as newer more efficient supply chain technologies are implemented
 - re-intermediation opportunities, where e-business creates new value between producers and consumers
 - Competition legislation
 - internal business opportunities that improve productivity utilising e-business development
 - risk management: payments, fraud etc
 - infrastructure requirements: disaster recovery, failsafe systems

- New capabilities may include:**
- 24-hour operation
 - communication
 - global reach
 - supply channel
 - distribution channel
 - online customer service
 - automated marketing efforts

UNIT

BSBEBUS501A Evaluate e-business opportunities

- Contribution to the business may include:**
- effect on:
 - sales
 - market share
 - profitability
 - growth
 - return on investment
 - customer satisfaction ratings
 - staff productivity and professional development
 - staff morale ie using efficient technologies to enhance workplace

- International nature of e-business may include:**
- language
 - culture
 - legal issues
 - technology
 - distribution factors

- Technology focus of e-business may include:**
- access to support
 - basic understanding of processes

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

- Critical Aspects of Evidence**
- Integrated demonstration of all elements of competency and their performance criteria
 - Evaluation of e-business opportunities involving new business models not simply electronic versions of existing businesses

Underpinning Knowledge*

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Familiarity with Internet / World Wide Web
- e-business environment
- e-business terminology
- Sources of market information
- Value chain analysis
- Cost-benefit analysis

Underpinning Skills

- Computer operating skills
- Literacy skills to identify and interpret market information
- Numeracy skills for data analysis and cost-benefit analysis
- Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

UNIT	BSBEBUS501A Evaluate e-business opportunities
-------------	--

Consistency of Performance In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

- Context/s of Assessment**
- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
 - Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
 - Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
 - Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

<p>Key Competency Levels <i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i></p>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 2
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to analyse the e-business market and to determine the impact of e-business solutions • Communicating ideas and information – to identify and communicate e-business opportunities and objectives and to identify and encourage business enabled by new capabilities which may become available • Planning and organising activities – to analyse the current external environment, to evaluate the business’s current capabilities and to identify new business opportunities • Working with teams and others – to provide effective leadership and direction and to facilitate change in order to take advantage of new business opportunities • Using mathematical ideas and techniques – to conduct an analysis of current and future business opportunities in relation to the current business position • Solving problems – to evaluate current situation and to position the business to take advantage of new business opportunities • Using technology – to facilitate analysis and evaluation of current situation and future opportunities <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS503A Design an e-business

Unit Descriptor This unit covers design of an e-business using an accepted or emerging e-business model. It may be a stand alone e-business or an existing business adding in an e-business facility and running both business models. Consider co-assessment with BSBEBUS501A Evaluate e-business opportunities and BSBEBUS502A Evaluate e-business models.

Competency Field e-business

Element**Performance Criteria**

- | | |
|-----------------------------------|---|
| 1. Determine e-business model | 1.1 An <i>e-business model</i> is confirmed for the business in accordance with the requirements of its business plan
1.2 Legal, ethical, risk management and security issues for the business are identified and addressed in accordance with e-business model
1.3 Cost implications of implementation of the e-business model are assessed and provided for
1.4 <i>Policies and procedures</i> are identified for development, to guide business operation in accordance with the e-business model |
| 2. Design an e-business | 2.1 Purpose, objectives and values are formulated for the e-business
2.2 Elements of the <i>value chain</i> are identified and structured for electronic business in accordance with the business model
2.3 The target market for the e-business strategy is identified and customer priorities investigated
2.4 The e-business is designed to address the needs of the target market in accordance with the purpose, objectives and values of the business |
| 3. Plan e-business implementation | 3.1 The benefits of internal development versus outsourcing versus partial outsourcing are assessed
3.2 The technical needs for implementation of the e-business model are identified in consultation with technical expert/s
3.3 Culture change issues are investigated and a plan developed to manage transition to an e-business
3.4 Options are developed and costed for e-business implementation and an implementation plan developed to manage the process in accordance with organisational requirements |

UNIT

BSBEBUS503A Design an e-business

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

- | | |
|---|---|
| Legislation, codes and national standards relevant to the workplace may include: | <ul style="list-style-type: none"> • award and enterprise agreements • national, State/Territory legislative requirements especially in regard to Occupational Health and Safety • industry codes of practice • OECD International Guidelines for Consumer Protection in E-Commerce • copyright laws • privacy legislation • intellectual property, confidentiality requirements • legal and regulatory policies affecting e-business • Internet codes of practice • ethics |
| e-business is: | <ul style="list-style-type: none"> • every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in <u>E-competent Australia</u>, ANTA, May 2000) |
| e-business models may include: | <ul style="list-style-type: none"> • e-shop / e-tailing • e-mail • e-procurement • e-auction • e-office • virtual community • collaboration partners • third party marketplaces • value chain integrators • value chain service providers • information brokers • trust services • competitor cooperation model • portals • web rings • multilevel marketing • aggregator models • tender services • e-government • micro-payments business model |

UNIT

BSBEBUS503A Design an e-business

- Value chain may include:**
- inbound logistics
 - operations
 - outbound logistics
 - marketing and sales
 - service support

- and their support activities, such as:**
- business infrastructure
 - human resource management
 - technological development
 - procurement

- Policies and guidelines may include:**
- security
 - privacy
 - integrity
 - confidentiality
 - information management
 - risk management
 - intellectual property
 - fraud prevention and detection
 - business ethics
 - human resource management
 - performance management
 - electronic communication
 - outsourcing
 - legal issues eg jurisdiction, contract validity, taxation
 - change management

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

- Critical Aspects of Evidence**
- Integrated demonstration of all elements of competency and their performance criteria
 - Rationale for value chain and marketing mix decisions

- Underpinning Skills**
- Computer technology skills
 - Literacy skills to identify and plan implementation of a business model
 - Numeracy skills for value chain analysis
 - Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

- Resource Implications**
- The learner and trainer should have access to appropriate documentation and resources normally used in the workplace including access to the Internet

UNIT

BSBEBUS503A Design an e-business

Underpinning Knowledge*

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Internet / World Wide Web
- e-business environment
- e-business terminology
- Accepted and emerging e-business models for business-to-business and business-to-consumer
- Value chain
- Legal, ethical, security and risk management issues relating to e-business
- Marketing mix
- Culture of e-business versus traditional business models

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

Context/s of Assessment

- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
- Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
- Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
- Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

UNIT

BSBEBUS503A Design an e-business

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 2	Level 1	Level 3	Level 1

Three levels of performance denote level of competency required to perform a task.

1. Perform
 2. Administer
 3. Design
- **Collecting, analysing and organising information** –to collect marketing information, to determine a suitable business model and to make value chain decisions
 - **Communicating ideas and information** – through the implementation, plan to develop business partnerships and to create a positive culture within the business
 - **Planning and organising activities** – to assist e-business implementation, to address the needs of the target market and to identify and implement the most appropriate options for the business
 - **Working with teams and others** –to develop policies and procedures, to gather and analyse information on business models and to facilitate changes in the business culture required by the development of an e-business model for the business
 - **Using mathematical ideas and techniques** – for value chain analysis
 - **Solving problems** – to determine marketing mix and technical needs to aid implementation decisions in regard to the best mix of internal and outsourced solutions
 - **Using technology** – to prepare implementation plan

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

UNIT

BSBEBUS504A implement an e-business strategy

Unit Descriptor

This unit covers implementation, monitoring and review of e-business strategy.

This unit is related to BSBEBUS601A Develop an e-business strategy. Consider co-assessment with BSBEBUS505A Implement new technologies for business.

Competency Field

e-business

Element

Performance Criteria

1. Implement action plan for e-business strategy	1.1 Business processes are identified and re-engineered using online technologies in accordance with the business plan and the e-business model
	1.2 Technology for e-business implementation is acquired in accordance with the action plan and budgetary requirements
	1.3 <i>Policies and procedures</i> are used to guide business operations in accordance with the e-business model
	1.4 Learning and development opportunities are provided in accordance with the business plan and staff needs
	1.5 <i>Information and development support</i> is provided to customers and supply chain to assist in implementation of the e-business strategy
2. Manage the business change process	2.1 Coaching and mentoring is provided to assist staff, supply chain and customers to master new processes and new technologies in accordance with individual needs
	2.2 Staff, supply chain and customers are kept informed of progress in the implementation of change to an e-business model
3. Monitor implementation and manage contingencies	3.1 The culture of the business and its effect on achievement of business goals is monitored and processes for dealing with culture change are managed in accordance with the e-business strategy
	3.2 Opportunities are identified to adjust policies and processes to respond to the changing needs of customers, supply chain and the organisation
	3.3 Adjustments to manage contingencies are made in accordance with level of responsibility and authority
4. Evaluate and improve e-business strategy	4.1 Review of the implementation of the e-business strategy is undertaken in accordance with organisational requirements
	4.2 Information and reports are used to compare plans, budgets, timelines and forecasts to actual performance
	4.3 e-business systems are reviewed in consultation with users and personnel responsible for e-business and recommendations made for improvements
	4.4 Evaluation results and feedback from users are used to plan and improve future e-business strategies

UNIT

BSBEBUS504A implement an e-business strategy

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- defamation laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business

e-business is:

- every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in E-competent Australia, ANTA, May 2000)

Policies and guidelines may include:

- security
- privacy
- confidentiality
- information management
- risk management
- intellectual property
- fraud prevention and detection
- business ethics
- human resource management
- performance management
- electronic communication
- outsourcing
- legal issues eg jurisdiction, contract validity, taxation

Information and development support may include:

- personal identification and password for online access to business processes eg purchasing or supply
- banking information for electronic funds transfer
- new protocols relating to legal or security issues for e-business
- open and international standards e.g. EAN.UCC or UN/EDIFACT
- contact person
- advice on staffing arrangements
- advice on technology issues / compatibility
- advice on existing business strategy and base business versus growth business
- feedback loops

UNIT

BSBEBUS504A implement an e-business strategy

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • The importance of culture change for the successful implementation of an e-business strategy
<p>Underpinning Knowledge*</p> <p>* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency</p>	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • e-business environment • e-business terminology • Legal, ethical and security issues relating to e-business • Culture of e-business versus traditional business models • Open and international standards • Implementation issues
Underpinning Skills	<ul style="list-style-type: none"> • Computer technology skills • Literacy skills to interpret policies and procedures and provide information to others • Numeracy skills for complying with budgetary requirements • Communication skills for consultation with users, supply chain and customers • Change management • Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

UNIT

BSBEBUS504A implement an e-business strategy

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 1	Level 3	Level 3

Three levels of performance denote level of competency required to perform a task.

1. Perform
 2. Administer
 3. Design
- **Collecting, analysing and organising information** – to re-engineer business processes and to evaluate and produce reports
 - **Communicating ideas and information** – to assist and coach staff, supply chain and customers with new e-business model and to keep stakeholders constantly informed of the changes in e-business strategies
 - **Planning and organising activities** – by developing policies and procedures to inform business operations and to implement e-business strategies
 - **Working with teams and others** – to provide training and development and to bring about the culture change necessary to manage change and to implement effective e-business strategies
 - **Using mathematical ideas and techniques** – to meet budgetary requirements
 - **Solving problems** – to manage change, to deal with contingencies and to develop and adapt processes and procedures to implement e-business strategies
 - **Using technology** – to provide business services

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

UNIT

BSBEBUS505A Implement new technologies for business

Unit Descriptor

This unit covers planning for the introduction of new technologies, implementing new technologies for the business and managing the change process associated with implementation.

Consider co-assessment with BSBEBUS504A Implement an e-business strategy.

Competency Field

e-business

Element	Performance Criteria
1. Develop implementation plan for new technologies	1.1 Staff skills and culture change issues in adoption of <i>new technologies</i> are determined in accordance with organisational requirements
	1.2 Risks and obstacles relating to the introduction of new technologies are identified and planned for
	1.3 Changes to current business practices necessary in adopting new technologies are identified
	1.4 Suppliers of new technologies are confirmed and their provision of initial and ongoing training and support identified
	1.5 Implementation plan identifies objectives, activities, timeframes and budget for the introduction of new technologies
2. Implement new technologies	2.1 Responsibility for new technologies is assigned in accordance with organisational requirements
	2.2 Technologies are introduced and business processes are re-engineered in accordance with the implementation plan
	2.3 <i>New policy and procedures</i> are developed for the introduction and integration of new technologies into the business
	2.4 New and existing staff are inducted, and learning and development opportunities for staff affected by new technologies are provided in accordance with the implementation plan
	2.5 Information and support are made available to customers and supply chain affected by the introduction of new technologies in accordance with organisational requirements
3. Monitor implementation of new technologies and manage contingencies	3.1 Staff, supply chain and customers are kept informed of progress in the implementation of change to new technologies
	3.2 The culture of the business is monitored and processes for facilitating culture change are utilised in accordance with the e-business strategy
	3.3 Opportunities are identified to adjust policies and processes to respond to the changing needs of customers, supply chain and the organisation within budgetary requirements
	3.4 Adjustments to policy and procedures to manage contingencies are made in accordance with level of responsibility and authority

UNIT

BSBEBUS505A Implement new technologies for business**Range Statement**

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

- Legislation, codes and national standards relevant to the workplace may include:**
- award and enterprise agreements
 - national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
 - industry codes of practice
 - OECD International Guidelines for Consumer Protection in E-Commerce
 - copyright laws
 - defamation laws
 - privacy legislation
 - intellectual property, confidentiality requirements
 - legal and regulatory policies affecting e-business
- e-business is:**
- every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in E-competent Australia, ANTA, May 2000)
- New technologies may include:**
- mobile technologies eg second generation such as GSM (Global System for Mobile communications)
 - 3G (third generation cellular radio for mobile technology, designed to support wideband data communications just as well as voice – the basis for a wireless information society)
 - location based services for mobile
 - digital signature technology for mobile phone users
 - General Packet Radio Services (GPRS)
 - WAP (wireless application protocol)
 - UMTS (universal mobile telephony system)
 - xDSL technologies eg ADSL (Asymmetric Digital Subscriber Line)
 - computer telephony integration
 - access gateways (to hide type of access that may be via cable modem, mobile telephone, landline, ADSL modem)
 - fax gateways
 - Bluetooth chips for short distance wireless connections over short distances (alternative to cable)
 - EDGE (Enhanced Data rates for GSM Evolution) to increase GSM network capacity and data rates
 - Internet telephony
 - voice verification technology
 - business to business electronic data intransfer e.g. UN/EDIFACT, XML via internet, web browsers.

UNIT

BSBEBUS505A Implement new technologies for business

- Policies and procedures may include:**
- security
 - risk management
 - information management
 - human resource management
 - business ethics
 - privacy
 - confidentiality
 - intellectual property
 - fraud prevention and detection
 - electronic communication

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

- Critical Aspects of Evidence**
- Integrated demonstration of all elements of competency and their performance criteria
 - Sufficiency of provision for staff support and training, attention to cultural change issues, and integration of new technologies with other business processes

- Underpinning Knowledge***
- * Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency
- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
 - e-business
 - e-business terminology
 - Change management
 - Legal, ethical and security issues relating to introduction of new technologies
 - Culture of e-business versus traditional business models
 - Implementation issues

- Underpinning Skills**
- Computer technology skills
 - Literacy skills to adjust policies and procedures and provide information to others
 - Numeracy skills for complying with budgetary requirements
 - Communication skills for consultation with suppliers, staff, supply chain and customers
 - Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

- Resource Implications**
- The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

- Consistency of Performance**
- In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

UNIT	BSBEBUS505A Implement new technologies for business
-------------	--

- Context/s of Assessment**
- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
 - Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
 - Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
 - Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels						
<i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 2	Level 3	Level 3	Level 3	Level 2	Level 3	Level 2
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to develop an implementation plan and to identify risks and changes needed to develop the business • Communicating ideas and information – through updated policy and procedures, to keep staff and customers informed of implementation progress of new technologies for the business • Planning and organising activities – to prepare for the implementation of new technologies for the business, including the training and development of new and existing staff and other stakeholders • Working with teams and others – to provide training to staff and others affected by the introduction of new technologies to the business • Using mathematical ideas and techniques – to prepare budgets and timeframes for the implementation of new technologies for the business • Solving problems – to manage cultural change, business process change and contingencies relating to the introduction of new technologies to the business • Using technology – once integrated into the business <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS506A Plan and develop a business website

Unit Descriptor

This unit covers the planning, developing and evaluating of the business aspects of a website and integration of the website into business operations.

This unit is related to BSBEBUS604A Develop a business website. Consider co-assessment with BSBEBUS507A Manage the business aspects of a website.

Competency Field

e-business

Element	Performance Criteria
1. Plan website structure	1.1 The style and structure of the website suit its <i>purpose</i> and intended target audience in accordance with the business website strategy 1.2 The website structure accommodates the required <i>features and capabilities</i> identified in website planning 1.3 Layout and navigation requirements are determined for appearance, readability, links, and ease of operation
2. Determine website content	2.1 <i>Business information</i> is used to create website content in accordance with the business website strategy 2.2 <i>Content features</i> are integrated into the website in accordance with the website plan 2.3 Website content is accurate, current and relevant to the website purpose and strategy 2.4 Language style and tone are suited to the business image to be conveyed and to the intended target audience
3. Develop website pages	3.1 A plan for website pages and <i>active links</i> is prepared to meet layout and navigation requirements 3.2 Page title is selected to reflect the business purpose and content of the website and to assist its access via search engines 3.3 Page presentation is improved by adding <i>features</i> which will enhance the text on the web pages 3.4 Linked web pages are developed in accordance with the website plan 3.5 Customer feedback mechanisms and processes are integrated into the website
4. Test and critically evaluate website	4.1 The website is visited to confirm its operational status, appearance, accuracy and <i>ease of operation</i> 4.2 The website projects a business image suited to the e-business model in accordance with the business website strategy 4.3 The website meets organisational requirements as identified in the business website strategy

UNIT

BSBEBUS506A Plan and develop a business website**Range Statement**

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- defamation laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business

Website purpose may include:

- marketing
- sales
- contracting and procurement
- auctions
- provision of information
- collaboration
- support to multiple businesses
- value chain integration
- electronic payments
- consultancy services
- certification

UNIT	BSBEBUS506A Plan and develop a business website
------	--

Website features and capabilities may include:	<ul style="list-style-type: none"> • marketing features • legal requirements • privacy and confidentiality requirements • security requirements • authentication facility or link • customer service requirements • shopping cart facilities • electronic payment facilities • online catalogues, brochures • knowledge bases • frequently asked questions (FAQs) • thumbnails • active links • navigation buttons • colour, sound, video, images, graphics • downloadable files • search facility • facility for user feedback on content and operation of website • text and tags in HTML (hypertext markup language) • cut down versions of web pages in WML (wireless markup language) for access by WAP (wireless application protocol) telephones
Business information may include:	<ul style="list-style-type: none"> • business purpose • business history • products • services • customer service
Content features may include:	<ul style="list-style-type: none"> • knowledge bases • products and services • catalogues • brochures • thumbnails • frequently asked questions (FAQS) • company profile • staff profiles • business history • client testimonials • published materials
Active links may include:	<ul style="list-style-type: none"> • link between a page and the home page (relative links) • link to a page on another website (fully qualified URL -uniform resource locators)

UNIT

BSBEBUS506A Plan and develop a business website**Page presentation features may include:**

- use of bold, italics, subscript, superscript, strikethrough
- different fonts and font sizes
- colour
- images eg photographs, graphics
- bulleted or numbered lists
- tables
- animated sequences
- sound
- movie sequence
- plug ins
- downloadable files

Ease of operation may include:

- homepage download time
- time to download files
- difficulty in navigation

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Business satisfaction with operational website

Underpinning Knowledge*

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Internet
- World Wide Web
- positive and negative aspects of a web site
- Browsers, search engines, web crawlers
- e-business environment
- e-Marketing principles
- Features of a marketing oriented website
- Ways to increase the marketing effectiveness of a website

Underpinning Skills

- Computer technology skills
- Communication skills to consult with relevant personnel on website purpose, image and capabilities
- Literacy skills to produce well-designed web pages
- Numeracy skills for layout and linking of pages
- Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

UNIT	BSBEBUS506A Plan and develop a business website
-------------	--

- Resource Implications** The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
- Consistency of Performance** In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
- Context/s of Assessment**
- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
 - Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
 - Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
 - Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

<p>Key Competency Levels <i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i></p>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 3
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to identify website structure suitable for the business and to determine content and features of website • Communicating ideas and information – through linked web pages and a language style and tone suitable for the business and by the development of customer feedback mechanisms and procedures • Planning and organising activities – to design the website including layout and links to complement the business aims and objectives • Working with teams and others – to determine the purpose and features of the website, and to determine customer feedback and meet customer requirements • Using mathematical ideas and techniques – to layout web pages • Solving problems – to develop the business website using appropriate information and content and by critically evaluating and testing the website to ensure its usefulness to the development of the business • Using technology – to develop a website <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS508A Build a virtual community

Unit Descriptor This unit covers development of a virtual business community built around a common interest / area of business.

Consider co-assessment with BSBEBUS507A Manage the business aspects of a website.

Competency Field e-business

Element	Performance Criteria
1. Set up a virtual community	<p>1.1 Registration / membership requirements and <i>guidelines</i> for participating in the virtual community are determined in accordance with the website marketing strategy</p> <p>1.2 The virtual community website is developed and marketing strategies implemented to launch the site and the community</p> <p>1.3 Member organisations/individuals are recruited and authenticated in accordance with organisational requirements</p> <p>1.4 Members are supported to access services and contribute to the community by sharing expertise and business/market intelligence in accordance with accepted <i>net etiquette</i></p>
2. Develop and manage a virtual community	<p>2.1 Contributions to the virtual community are monitored and strategies adjusted to enhance cooperation and build the community in accordance with the website communication strategy</p> <p>2.2 The culture of the developing community is monitored and processes for dealing with contingencies are developed and implemented in accordance with level of responsibility and authority</p> <p>2.3 Customer satisfaction with the virtual community is evaluated and strategies to improve customer service are developed and implemented in accordance with organisational requirements</p> <p>2.4 Opportunities are identified to adjust policies and processes to respond to the changing needs of members and the organisation</p>

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- defamation laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business

UNIT

BSBEBUS508A Build a virtual community

Virtual community refers to:

- a website where members / clients contribute and access information

Guidelines may include:

- legal, ethical and security issues
- pre-requisites for membership
- roles, rights and responsibilities of members
- open posting and viewing of free materials
- moderated postings
- roles, rights and responsibilities of moderator
- viewing restricted by log-on and/or password
- subscription conditions and fees

Net etiquette (netiquette) refers to:

- protocols for discussion groups
- accepted (not mandated) rules for being a good net citizen (netizen)
- remember you're dealing with real people not computers
- if you wouldn't do it in real life don't do it in cyberspace
- adjust to the style and tone of discussion groups
- respect other's time and bandwidth
- look good online (spelling, grammar, and something worth saying)
- share expert knowledge
- keep flames under control (flaming is making personal attacks on others)
- respect other people's privacy
- don't abuse your power
- be forgiving of other's mistakes
- from Virginia Shea (1994) *Netiquette*, Albion Books San Francisco pp 32 - 33

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Level of member satisfaction with the virtual community
- Evaluating and influencing the culture of the virtual community

Underpinning Knowledge*

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Internet / World Wide Web
- e-business environment
- e-business terminology
- Website business management
- Legal, ethical and security issues relating to websites
- Culture of e-business community versus traditional business community

UNIT	BSBEBUS508A Build a virtual community
Underpinning Skills	<ul style="list-style-type: none"> • Computer technology skills • Literacy skills to interpret policies and procedures and provide information to others • Numeracy skills for reviewing website data • Communication skills for consultation with members • Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels <i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 1	Level 3	Level 2
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to determine the focus and membership of the virtual community, and identify the technical support, communication process and financial commitment necessary to support the business community • Communicating ideas and information – through the virtual community website to recruit members and to assist them to access services and to contribute to the community • Planning and organising activities – to launch the virtual community, to respond to change and to deal with contingencies as they arise, especially in the area of website security • Working with teams and others – to develop the virtual community, to gather feedback from website users and community members, to recommend changes and to encourage co-operation and contribution from members • Using mathematical ideas and techniques – for data analysis of website users • Solving problems – to improve services and contributions, to develop community membership and to resolve potential conflicts as they arise • Using technology – to build a virtual community <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS509A Implement e-business outsourcing arrangements

Unit Descriptor

This unit covers preparation of a brief for outsourcing or contracting e-business activities, investigation of collaborative or partnership opportunities, determining outsourcing arrangements and contracting provider/s.

This unit is related to BSBEBUS607A Develop e-business outsourcing policy and guidelines. Consider co-assessment with BSBEBUS510A Manage e-business outsourcing and BSBEBUS516A Manage online purchasing.

Competency Field

e-business

Element	Performance Criteria
1. Prepare a brief for outsourcing or contracting e-business activities	1.1 <i>Criteria</i> for identifying <i>e-business</i> activities for outsourcing or contracting are confirmed and used in accordance with organisational policy and guidelines 1.2 <i>Activities suitable for outsourcing</i> are identified and risk analysis conducted in accordance with organisational policy and guidelines to select those to be included in the brief 1.3 Specifications are determined for the business activities, and a <i>brief</i> prepared in accordance with organisational requirements
2. Investigate outsourcing options	2.1 Collaborative or partnering opportunities are investigated in accordance with organisational policy and guidelines 2.2 Potential service providers of outsourced e-business activities are identified and provided with the contract brief 2.3 The brief is advertised and offers obtained in accordance with organisational policy and procedures, and <i>legal and ethical requirements</i>
3. Determine outsourcing arrangements	3.1 Offers are evaluated against the specifications in the brief and successful providers or partners selected based on selection criteria, value for money and quality of goods and services in accordance with organisational policy and procedures 3.2 Contractual arrangements are confirmed and agreed in accordance with legal and accounting requirements

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- legal and regulatory policies affecting e-business
- code of conduct - e-procurement

UNIT

BSBEBUS509A Implement e-business outsourcing arrangements

Outsourcing criteria may include:

- cost shifting
- quality
- customer needs
- customer loyalty
- vendor loyalty
- time to market
- access to market
- market share
- brand building issues
- margins
- risk management assessment – contingency planning

e-business is:

- every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in [E-competent Australia](#), ANTA, May 2000)

Activities suitable for outsourcing may include:

- website setup, maintenance and management - file transfer protocols
- online catalogue setup and maintenance
- technology maintenance and upgrade
- setting up new users after initial implementation
- authentication services
- ordering
- production
- e-marketing
- inventory management
- labelling
- distribution
- invoicing
- credit card facilities
- accounting
- confirmation order received back to the customer

Outsourcing brief may include

- expected outcomes
- selection criteria
- length of contract
- responsibilities of the parties
- terms of the contract
- financial arrangements
- management reporting criteria
- service level agreement
- key performance indicators
- agreed format for vendor provision

UNIT

BSBEBUS509A Implement e-business outsourcing arrangements

- Legal and ethical requirements may include:**
- confidentiality
 - privacy
 - aspects of contract law
 - equal employment opportunity
 - Trades Practices Act

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

- Critical Aspects of Evidence**
- Integrated demonstration of all elements of competency and their performance criteria
 - Legislation and procedures applied to the outsourcing or contracting process including code of conduct

- Underpinning Knowledge***
- * Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency
- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination

- Outsourcing or contracting policy and procedures
- Probity issues related to awarding contracts
- Code of conduct
- Legal issues related to collaboration or partnerships (intellectual property, copyright, confidentiality etc)
- relevant aspects of trade practices, commercial and contract law

- Underpinning Skills**
- Literacy skills to determine brief and read contracts
 - Numeracy skills to determine value for money
 - Communication skills to negotiate contract or partnership arrangements
 - Negotiation skills to handle partnering
 - Computer technology skills
 - Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

- Resource Implications**
- The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

- Consistency of Performance**
- In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

UNIT	BSBEBUS509A Implement e-business outsourcing arrangements
-------------	--

- Context/s of Assessment**
- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
 - Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
 - Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
 - Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

<p>Key Competency Levels <i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i></p>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 1
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to determine activities to be outsourced and to develop specifications and contracts. • Communicating ideas and information – to investigate and confirm collaborative or partnering opportunities and to negotiate with business partners • Planning and organising activities – to co-ordinate the requirements and information necessary to develop and advertise the contract brief and to make decisions on outsourcing arrangements • Working with teams and others – to identify requirements and develop specifications and contracts, to select business partners and negotiate contractual arrangements • Using mathematical ideas and techniques – to identify project requirements and to determine value for money • Solving problems – to develop specifications and contracts to co-ordinate the project brief and to select the most cost effective offer • Using technology – to prepare outsourcing brief <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS510A Manage e-business outsourcing

Unit Descriptor

This unit covers establishing strategies for managing outsourcing and communication with service providers, performance management, monitoring and review of contractual arrangements.

This unit is related to BSBEBUS607A Develop e-business outsourcing policy and guidelines. Consider co-assessment with BSBEBUS509A Implement e-business outsourcing arrangements and BSBEBUS516A Manage online purchasing.

Competency Field

e-business

Element	Performance Criteria
1. Establish a management strategy for e-business outsourcing	1.1 <i>Contractual arrangements</i> are re-confirmed with all parties to ensure a common understanding of responsibilities and planned outcomes 1.2 Agreed technology and information exchange requirements are checked and an electronic communication strategy negotiated in accordance with contractual obligations 1.3 Start-up or transition arrangements are agreed and implemented in accordance with contractual obligations 1.4 A strategy for day to day and contingency management of <i>e-business outsourcing</i> is negotiated and documented in accordance with organisational requirements 1.5 A contract review strategy is agreed for e-business outsourcing in accordance with organisational requirements
2. Maintain and monitor outsourcing performance	2.1 Relationship with outsourcing service provider is managed in accordance with e-business outsourcing policy and guidelines 2.2 Outsourcing service quality and performance is monitored against forecasts, customer service requirements and budgets for early identification of problems and to ensure contractual obligations are met 2.3 Obligations of the business to the e-business service provider are met and any <i>negotiation of issues</i> occurs in accordance with contractual obligations 2.4 Emerging or potential risks are managed in accordance with the organisation's risk management strategy 2.5 Management and communication strategies are monitored for effectiveness and adapted as necessary during the life of the contract in accordance with organisational requirements and level of authority 2.6 Business records for e-business outsourcing are maintained in accordance with organisational requirements to allow management reporting / decision-making

UNIT

BSBEBUS510A Manage e-business outsourcing

- | | | | |
|----|--|-----|---|
| 3. | Review and renegotiate or finalise e-business outsourcing arrangements | 3.1 | Contract review strategy is implemented, including customer review, and performance data related to contract management, customer and service provider satisfaction, profitability and value adding, analysed |
| | | 3.2 | Contract review information is used to report on service level agreements, provider performance and outcomes, and to adapt e-business outsourcing policy and guidelines |
| | | 3.3 | Where contractual obligations have not been met in full, variances are documented, explained and remedied |
| | | 3.4 | Contract is finalised or renegotiated based on review outcomes in accordance with contractual obligations |
| | | 3.5 | Close-out, renewal of the contract or transition to a new contract are managed in accordance with organisational requirements and contractual obligations |

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business
- Trade Practices Act

Contractual arrangements may include:

- collaborative agreement
- partnership
- licence
- contract
- letter of intent
- memorandum of agreement
- management reporting criteria including vendor reporting and service level agreement compliance

e-business is:

- every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in [E-competent Australia](#), ANTA, May 2000)

UNIT

BSBEBUS510A Manage e-business outsourcing

e-business outsourcing may include:

- website setup, maintenance and management
- online catalogue setup and maintenance
- technology maintenance
- authentication services
- ordering
- production
- e-marketing
- inventory management
- labelling
- distribution
- invoicing
- credit card facilities
- accounting

Negotiation of issues may include:

- resolving disputes
- dealing with complaints
- dealing with non-compliance
- consequences of defaulting
- contract variations
- continuous improvement
- innovations

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Negotiation of issues arising /management of contingencies
- mutually beneficial e-business outsourcing arrangements

Underpinning Knowledge*

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Outsourcing policy and procedures
- Legal and ethical issues related managing contracts
- Legal issues related to collaboration or partnerships (intellectual property, copyright, confidentiality etc)
- relevant aspects of trade practices, commercial and contract law

UNIT

BSBEBUS510A Manage e-business outsourcing**Underpinning Skills**

- Literacy skills to read contractual agreements, and document contract management strategies and contract variations
- Numeracy skills to determine profitability, value adding
- Communication skills to deal with contingencies and re-negotiate contract or partnership arrangements
- Oral skills to present reports to stakeholders on outsourcing
- Computer technology skills
- Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

Context/s of Assessment

- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
- Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
- Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
- Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

UNIT

BSBEBUS510A Manage e-business outsourcing

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 2

Three levels of performance denote level of competency required to perform a task.

1. Perform
 2. Administer
 3. Design
- **Collecting, analysing and organising information** – to determine project specifications, establish processes, review specifications and contracts and outsourcing arrangements
 - **Communicating ideas and information** – to confirm outsourcing arrangements and to negotiate issues relating to outsourcing arrangements
 - **Planning and organising activities** – to co-ordinate the requirements and information necessary to implement the contract brief, to make decisions on outsourcing arrangements and to manage contingencies
 - **Working with teams and others** – to develop relationships with business partners and negotiate contractual arrangements to minimise risks associated with outsourcing
 - **Using mathematical ideas and techniques** – to analyse cost effectiveness of outsourcing arrangements
 - **Solving problems** – to implement specifications and contracts, to co-ordinate the project brief and to deal with disputes or complaints
 - **Using technology** – to manage e-business outsourcing

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

UNIT

BSBEBUS511A Implement a knowledge management strategy for an e-business**Unit Descriptor**

This unit covers implementation of a knowledge management strategy for an e-business through technology and cultural change.

This unit is related to BSBEBUS609A Develop a knowledge management strategy for an e-business.

Competency Field

e-business

Element**Performance Criteria**

- | | |
|---|--|
| 1. Implement knowledge management system and procedures | 1.1 A culture of sharing knowledge within the e-business is fostered through a system of formal and/or informal incentives and rewards |
| | 1.2 Policy and procedures for capturing knowledge within the organisation are implemented in accordance with the e-business knowledge management strategy and integrated into existing business processes to change the enterprise processes to an e-business one. |
| | 1.3 Ways of contributing to the organisation's knowledge management system are modelled, and learning and development opportunities are provided for staff to assist them to contribute and provide feedback |
| | 1.4 Staff are provided with coaching, mentoring and ongoing support in accessing and using the organisation's knowledge management system in accordance with the e-business knowledge management strategy |
| | 1.5 Protection and security of knowledge / information and levels of access are managed in accordance with organisational requirements |
| 2. Maintain e-business knowledge base | 2.1 Input procedures are monitored to ensure that sources are tapped and knowledge captured in accordance with the e-business knowledge management strategy and to ensure the effectiveness of accurate <i>data capture</i> |
| | 2.2 Data on access and use of the knowledge management system is collected and analysed to ascertain the organisation's strategic use of knowledge |
| | 2.3 Contingency measures are implemented to address shortfalls in the knowledge management system and procedures in accordance with level of responsibility and authority |
| 3. Review knowledge management system and procedures | 3.1 The effectiveness of the knowledge management system and procedures is evaluated to ensure they are meeting the needs of clients, organisational aims, objectives and standards |
| | 3.2 Organisational knowledge content, accuracy and currency is periodically reviewed in accordance with organisational requirements |
| | 3.3 Improvements to the system and to the organisation's strategic use of knowledge are identified in consultation with users and a cost-benefit analysis prepared for recommendations |

UNIT

BSBEBUS511A Implement a knowledge management strategy for an e-business

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

- | | |
|---|--|
| Legislation, codes and national standards relevant to the workplace may include: | <ul style="list-style-type: none"> • award and enterprise agreements • national, State/Territory legislative requirements especially in regard to Occupational Health and Safety • industry codes of practice • OECD International Guidelines for Consumer Protection in E-Commerce • copyright laws • defamation laws • privacy legislation • intellectual property, confidentiality requirements • legal and regulatory policies affecting e-business |
| e-business is: | <ul style="list-style-type: none"> • every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in E-competent Australia, ANTA, May 2000) |
| Accurate data capture can involve: | <ul style="list-style-type: none"> • ensuring effectiveness of accurate data capture • minimisation of inefficient processing • using open standards e.g. EAN.UCC, UN/EDIFACT |

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

- | | |
|-------------------------------------|--|
| Critical Aspects of Evidence | <ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Contingency measures for overcoming barriers to implementation of the knowledge management system |
| Underpinning Knowledge* | <ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Internal and external sources of information • Structure of the e-business • Culture of e-business versus traditional business models • Legal, ethical and security issues relating to knowledge management • Knowledge maintenance issues • e-business terminology |
- * Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

UNIT

BSBEBUS511A Implement a knowledge management strategy for an e-business

- Underpinning Skills**
- Computer technology skills
 - Literacy skills to access and use knowledge management system
 - Numeracy skills data analysis
 - Communication skills for consultation with staff
 - Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

Consistency of Performance In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

- Context/s of Assessment**
- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
 - Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
 - Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
 - Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

UNIT	BSBEBUS511A Implement a knowledge management strategy for an e-business
-------------	--

Key Competency Levels *NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.*

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 1	Level 3	Level 2

Three levels of performance denote level of competency required to perform a task.

1. Perform
2. Administer
3. Design

- **Collecting, analysing and organising information** – to collect and analyse data to assess use of the organisation’s knowledge management system and to develop policies and procedures
- **Communicating ideas and information** – through coaching and mentoring staff in the use of the organisation’s knowledge management system and in seeking ways to improve the system
- **Planning and organising activities** – to co-ordinate the requirements and information necessary to manage the organisation’s knowledge system and to maintain and develop the organisation’s knowledge base
- **Working with teams and others** – to implement change, to identify requirements and to develop systems to implement the organisation’s knowledge management system
- **Using mathematical ideas and techniques** – for data analysis
- **Solving problems** – by implementing contingency measures to address shortfalls in the system and by developing systems to ensure the system is effective, secure and sufficient for the organisation’s requirements
- **Using technology** – to manage organisational knowledge

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

UNIT

BSBEBUS512A Implement electronic communication policy**Unit Descriptor**

This unit covers implementing policy for internal and external electronic communication to enable effective communication processes while meeting legal and ethical requirements.

This unit is related to BSBEBUS610A Develop electronic communication policy.

Competency Field

e-business

Element	Performance Criteria
1. Establish infrastructure and processes for policy implementation	1.1 <i>Technology and security requirements</i> are arranged in accordance with the electronic communication policy and budgetary requirements 1.2 A strategy for internal and external communication is developed for the business in accordance with organisational requirements 1.3 A process is established to ensure security of email systems in accordance with electronic communication policy 1.4 Systems are configured and processes established to allow Internet use in accordance with organisational requirements
2. Implement electronic communication policy	2.1 Policy and processes are explained and interpreted relative to the workplace and staff are assisted with application to their work practices 2.2 Expected outcomes of the policy are explained and feedback sought on possible complications in implementation 2.3 Information and development support is provided to customers and staff to enable integration of policy and processes into business operations 2.4 Strategies are developed and implemented to build a culture of effective electronic communication that meets <i>legal and ethical requirements</i> and business needs
3. Monitor and review policy implementation	3.1 The effectiveness of the electronic communication policy and procedures is evaluated against expected outcomes to ensure they are meeting the needs of customers and staff, organisational aims, objectives and standards 3.2 Evaluation results are used to make recommendations for improvement to policy and practices 3.3 Revised policy and practices are implemented in accordance with organisational requirements

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- legal and regulatory policies affecting e-business

UNIT

BSBEBUS512A Implement electronic communication policy

Technology and security requirements may include:

- recognised Internet Service Provider (ISP) with secure platform
- Secure web server and browser with SSL (secure sockets layer)
- firewalls
- encryption technology

Legal and ethical requirements may include:

- confidentiality requirements
- defamation laws
- privacy legislation
- intellectual property
- copyright laws

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Policy is explained and related to real workplace practices to suit the knowledge and experience of customers and/or staff

Underpinning Knowledge*

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Policy implementation strategies
- Change management strategies
- Organisational requirements related to electronic communication policy
- Legal and ethical considerations related to electronic communication policy
- Security issues related to electronic communication policy

Underpinning Skills

- Literacy skills to provide information and development opportunities
- Numeracy skills to provide infrastructure within budget
- Communication skills to explain and interpret policy
- Computer technology skills
- Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

UNIT	BSBEBUS512A Implement electronic communication policy
-------------	--

- Context/s of Assessment**
- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
 - Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
 - Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
 - Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels						
<i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 2
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to identify technology and security requirements to provide information and identify development opportunities • Communicating ideas and information – while explaining and interpreting policy and collecting feedback for future development opportunities • Planning and organising activities – to implement the requirements necessary to integrate policy and procedures into business processes • Working with teams and others – to ensure stakeholders are informed of procedures and that policies and procedures are implemented effectively • Using mathematical ideas and techniques – to provide infrastructure within budget • Solving problems – during policy implementation • Using technology – to implement electronic communication policy <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS518A Manage an e-business supply chain

Unit Descriptor

This unit covers implementation of the e-business supply chain management strategy, managing the supply chain, and evaluating and improving the effectiveness of the supply chain.

The unit is related to BSBEBUS616A Plan an e-business supply chain.

Competency Field

e-business

Element	Performance Criteria
1. Implement demand-driven supply chain management strategy	1.1 Responsibility for <i>supply chain</i> management within the organisation is assigned in accordance with e-business supply chain management strategy 1.2 Technology for implementation is brought online in accordance with the strategy and budgetary requirements 1.3 Policies and procedures are designed to guide business relations and operations in accordance with the strategy 1.4 Supporting <i>business processes</i> are designed or re-designed to support implementation of the strategy 1.5 <i>Information and development support</i> is provided to staff, customers and supply chain to assist in implementation of the supply chain management strategy
2. Manage e-business supply chain	2.1 Communication and information exchange with strategic partners and suppliers is managed in accordance with the supply chain management strategy 2.2 Collaboration with supply chain organisations is facilitated to determine demand at each level of the supply chain in accordance with the supply chain management strategy 2.3 Online purchasing, selling and payments are managed in accordance with supply chain and risk management strategies, and legal and ethical requirements 2.4 Actions to build trust and foster a supply chain culture are implemented in accordance with the supply chain management strategy 2.5 Opportunities are identified to adjust policies and processes to respond to the changing needs of customers, supply chain and the organisation
3. Evaluate and improve e-business supply chain effectiveness	3.1 <i>Demand chain</i> and supply chain management are monitored in accordance with the supply chain management strategy 3.2 The effectiveness of the supply chain is reviewed with each level of the supply chain including staff and customers and areas identified for <i>improvement</i> 3.3 Business data and reports are used to compare outcomes, budgets, timelines and forecasts to actual performance 3.4 Technology performance is reviewed and recommendations made for improvements to hardware, software and/or their use in accordance with e-business strategy and budget 3.5 Feedback and evaluation results are used to plan and improve future supply chain management strategies

UNIT

BSBEBUS518A Manage an e-business supply chain

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

- | | |
|---|--|
| Legislation, codes and national standards relevant to the workplace may include: | <ul style="list-style-type: none"> • award and enterprise agreements • national, State/Territory legislative requirements especially in regard to Occupational Health and Safety • industry codes of practice • OECD International Guidelines for Consumer Protection in E-Commerce • copyright laws • privacy legislation • intellectual property, confidentiality requirements • legal and regulatory policies affecting e-business • open and international supply chain management standards e.g. EAN.UCC |
| e-business is: | <ul style="list-style-type: none"> • every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in <u>E-competent Australia</u>, ANTA, May 2000) |
| Supply chain may include: | <ul style="list-style-type: none"> • the entire cycle from raw materials to producers, component suppliers, manufacturers, wholesalers, 3rd party service providers, retailers, customers and recyclers, plus freight, distribution and cash flow |
| Business processes may include: | <ul style="list-style-type: none"> • data input • administration • ordering • payments • accounting |
| Information and development support may include: | <ul style="list-style-type: none"> • advice on technology issues / compatibility • protocols for electronic data interchange • implementation of open and international standards for e-business supply chain management e.g. EAN.UCC • personal identification and password for online access between businesses for access to inventory data and purchasing, payment or supply processes • banking information for electronic funds transfer • protocols relating to legal or security issues for e-business • contact person |
| Demand chain management is: | <ul style="list-style-type: none"> • a collaborative process that involves determining how much product needs to be produced at each level of the supply chain through to the end customer |
| Improvements in the supply chain may include: | <ul style="list-style-type: none"> • disintermediation opportunities where the role of 'middlemen' or other middle supply chain elements is reduced or made redundant as newer more efficient supply chain technologies are implemented • re-intermediation opportunities, where e-business creates new value between producers and consumers |

UNIT

BSBEBUS518A Manage an e-business supply chain

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Integration of the supply chain as a virtual community, collaborating rather than competing
<p>Underpinning Knowledge*</p> <p>* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency</p>	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Supply chain management • e-business • e-business terminology • Accepted and emerging models for supply chain management and demand chain management • Legal, ethical and security issues relating to supply chain management • Ways to built trust and collaboration as opposed to competition
Underpinning Skills	<ul style="list-style-type: none"> • Computer technology skills • Literacy skills to review business reports • Numeracy skills for evaluating performance data • Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

UNIT

BSBEBUS518A Manage an e-business supply chain

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 2

Three levels of performance denote level of competency required to perform a task.

1. Perform
 2. Administer
 3. Design
- **Collecting, analysing and organising information** – to review effectiveness of e-business supply chain management
 - **Communicating ideas and information** – to collaborate with supply chain stakeholders, to implement supply chain management strategy
 - **Planning and organising activities** – to manage the supply chain and to implement supply chain management policies and procedures
 - **Working with teams and others** – to build trust and a corporate supply chain culture
 - **Using mathematical ideas and techniques** – to compare data and reports with forecasts and budgets
 - **Solving problems** – to adjust policy and processes to adapt to changing needs of online customers and the supply chain
 - **Using technology** – to manage e-business supply chain

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

UNIT

BSBEBUS601A Develop an e-business strategy

Unit Descriptor

This unit covers environmental analysis and strategic planning for e-business that supports the organisation's overall business strategy.

This unit is related to BSBEBUS501A Evaluate e-business opportunities and BSBEBUS502A Evaluate e-business models. Consider co-assessment with BSBEBUS602A Develop an action plan for an e-business strategy and BSBEBUS604A Develop a business website.

Competency Field

e-business

Element

Performance Criteria

1. Analyse the organisation's internal business environment	1.1	The organisation's strategic direction, general business goals and priorities are confirmed and potential benefits from the adoption of an e-business strategy are identified
	1.2	Current business practices, responsibilities, and business culture are re-evaluated in light of e-business requirements
	1.3	Organisational policies, <i>procedures and relationships</i> that may benefit from the adoption of e-business solutions are identified
	1.4	The impact of e-business strategies on employees and existing customers is evaluated and documented in accordance with organisational requirements
	1.5	The business' strengths, weaknesses, <i>opportunities and threats</i> are analysed in relation to e-business
	1.6	The potential for the e-business strategy to transform the business is considered within the planning process and risk management processes identified
2. Evaluate external factors impacting on e-business strategy	2.1	The impact of e-business in the organisation's industry sector is researched and evaluated
	2.2	<i>Legal, ethical and security issues</i> relating to e-business are identified and analysed
	2.3	A competitive analysis of existing and potential e-business competitors and allies in is undertaken to determine the relative competitive advantage of e-business strategies
	2.4	The impact on the strategy of the potential <i>international nature of e-business</i> is evaluated
	2.5	Potential e-business models are evaluated in terms of their ability to satisfy business objectives and an economic evaluation of each option completed
	2.6	Opportunities, risks and obstacles in implementing an e-business model are evaluated and ways to deal with them identified
3. Determine the strategic direction of the business in relation to e-business	3.1	Strategic e-business goals are determined for the business in accordance with the overall strategic direction and business goals of the organisation
	3.2	Critical e-business success factors are determined in accordance with the overall business goals of the organisation
	3.3	Key result areas for the e-business strategy are identified in accordance with overall business goals
	3.4	The strategy identifies areas of the business that are trading online and off-line and the management of these, including operations that may overlap

UNIT

BSBEBUS601A Develop an e-business strategy

- | | | | |
|----|----------------------------------|-----|---|
| 4. | Formulate an e-business strategy | 4.1 | The e-business strategy identifies prioritised objectives within key result areas and includes strategies to achieve each objective in accordance with overall strategic direction and business goals |
| | | 4.2 | The strategy identifies an e-business model for the organisation in accordance with strategic direction and overall business objectives and capabilities |
| | | 4.3 | The strategy includes a risk analysis for key result areas, and strategies for dealing with culture change in the organisation relating to e-business |
| | | 4.4 | Policies <i>and procedures</i> are identified for development to guide business operation in accordance with the e-business model and overall business objectives |
| | | 4.5 | Valid and reliable performance measures are determined for each e-business objective along with strategies for performance monitoring and reporting |
| | | 4.6 | The strategy meets organisational requirements in terms of format and level of detail |

Range of Variables

The Range of Variables provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- defamation laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business

e-business is:

- every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in [E-competent Australia](#), ANTA, May 2000)

Procedures and relationships may include:

- organisation structures, plans, strategies
- customer service
- delivery of core services
- delivery of products
- delivery of wider business services
- delivery of Government services
- trading communities
- development of new products, services and markets
- human resource development

UNIT

BSBEBUS601A Develop an e-business strategy

- Threats and opportunities may include:**
- business-to-business (B2B) opportunities involving e-business between two companies
 - business-to-consumer (B2C) opportunities involving e-business between an enterprise and a customer
 - disintermediation threats/opportunities where the role of ‘middlemen’ or other middle supply chain elements is reduced or made redundant as newer more efficient supply chain technologies are implemented
 - re-intermediation opportunities, where e-business creates new value between producers and consumers
 - rate of change of the market
 - acceptance of the community to validity of e-business
 - threats to the reliability of supply in the provision of goods and services from suppliers outside the enterprise
- Legal and ethical issues may include:**
- security
 - privacy
 - confidentiality
 - ownership of information
 - intellectual property
 - fraud prevention and detection
 - business ethics
 - legal issues eg jurisdiction, contract validity, taxation
 - occupational health and safety
- International nature of e-business may include:**
- language
 - culture
 - legal issues
 - technology

UNIT

BSBEBUS601A Develop an e-business strategy**Policies and procedures may include:**

- security
- privacy
- confidentiality
- information management
- risk management
- intellectual property
- fraud prevention and detection
- code of practice
- business ethics
- human resource management
- human resource development
- performance management
- electronic communication
- outsourcing
- legal issues eg jurisdiction, contract validity, taxation
- quality assurance and warranty
- cultural communication aspects eg forms of address, expression, site navigation assistance, client feedback

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range of Variables.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Information to support choice of critical success factors, key result areas, strategic objectives and their priorities

Underpinning Knowledge*

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- e-business environment
- e-business terminology
- Business planning methodologies
- Legal, ethical and security issues relating to e-business
- Culture of e-business versus traditional business models
- Intellectual property laws

* At this level the learner must demonstrate understanding of specialised knowledge with depth in some areas.

UNIT	BSBEBUS601A Develop an e-business strategy	
Underpinning Skills	<ul style="list-style-type: none"> • Computer technology skills • Literacy skills to research and develop e-business strategy • Numeracy skills for data analysis • Risk analysis • Business development skills commensurate with understanding the business' marketing needs • Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities 	
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace, in particular, technology related resources	
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations	
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit 	

Key Competency Levels						
<i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 2
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to design and develop an e-business strategy • Communicating ideas and information – through a clear strategy document • Planning and organising activities – to identify critical success factors and key result areas • Working with teams and others – to determine priorities • Using mathematical ideas and techniques – to analyse data • Solving problems – through risk analysis • Using technology – to prepare strategy document <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS602A Develop an action plan for an e-business strategy**Unit Descriptor**

This unit covers development of an action plan or operational plan for the implementation and management of an e-business strategy.

Consider co-assessment with BSBEBUS601A Develop an e-business strategy.

Competency Field

e-business

Element**Performance Criteria**

- | | | | |
|----|---|-----|---|
| 1. | Identify parameters for action plan | 1.1 | The structure and format of the plan and resources for strategy implementation are confirmed in accordance with organisational requirements |
| | | 1.2 | <i>e-business</i> strategy is analysed to confirm strategic direction, critical success factors and key result areas |
| | | 1.3 | Pre-planning data such as available resources, budget allocations, timeframes and milestones are confirmed for the operating cycle of the e-business strategy |
| | | 1.4 | <i>Legal, ethical and security issues</i> relating to e-business are clarified |
| | | 1.5 | The impact of e-business trading is factored into operational policies where not all business will be conducted online |
| 2. | Identify tactical objectives and activities for action plan | 2.1 | <i>Tactical objectives</i> are linked directly to critical success factors and strategic objectives for each key result area in the e-business strategy |
| | | 2.2 | Tactical objectives include those that address contextual issues such as the e-business model of the organisation, occupational health and safety issues for e-business and the national / international nature of e-business |
| | | 2.3 | Activities are identified and prioritised and responsibilities are assigned in accordance with organisational requirements |
| | | 2.4 | Activities relate to both business activities and those that address risks and obstacles related to e-business |
| | | 2.5 | Timeframes, resource implications and budgetary requirements are identified for each activity in accordance with pre-planning information |
| 3. | Formulate an action plan for an e-business strategy | 3.1 | Outcomes, success measures, monitoring and reporting processes are included in the plan for each tactical objective and are valid and relevant |
| | | 3.2 | The action plan identifies learning and development needs and systems, change management and implementation strategies to assist in achieving the e-business strategy |
| | | 3.3 | <i>Policies and procedures</i> are scheduled for development / updating to guide business operation in accordance with the e-business model |
| | | 3.4 | The action plan provides <i>information</i> and strategies in reader friendly language or diagrammatic format to ensure ease of use by the organisation |
| | | 3.5 | The action plan is formulated in accordance with organisational requirements for content, structure and format |
| | | 3.6 | The action plan includes monitoring and review processes to assess outcomes and identify and address shortfalls in accordance with organisational requirements |

UNIT

BSBEBUS602A Develop an action plan for an e-business strategy

Range of Variables

The Range of Variables provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

- | | |
|---|---|
| Legislation, codes and national standards relevant to the workplace may include: | <ul style="list-style-type: none"> • award and enterprise agreements • national, State/Territory legislative requirements especially in regard to Occupational Health and Safety • intellectual property, confidentiality requirements • legal and regulatory policies affecting e-business • business ethics • and must include: • industry codes of practice • OECD International Guidelines for Consumer Protection in E-Commerce • copyright laws • privacy legislation |
| e-business is: | <ul style="list-style-type: none"> • every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in <u>E-competent Australia</u>, ANTA, May 2000) |
| Legal and ethical requirements may include: | <ul style="list-style-type: none"> • confidentiality • codes of practice • business ethics • legislation • regulations • policies and guidelines |
| Tactical objectives may include: | <ul style="list-style-type: none"> • links to strategic and operational objectives • links to general business strategies |

UNIT

BSBEBUS602A Develop an action plan for an e-business strategy**Action plan information may include:**

- objectives
- their link to the e-business strategy
- activities
- priorities
- responsibility
- timeframes
- resource implications
- budgetary implications
- success measures
- monitoring and evaluation processes
- reporting processes
- review processes
- change management strategies
- database construction and maintenance
- access to website under construction
- testing of website by client stakeholders

Policies and guidelines may include:

- information management
- risk management
- intellectual property
- fraud prevention and detection
- business ethics
- code of practice
- human resource management
- performance management
- electronic communication
- outsourcing
- legal issues eg jurisdiction, contract validity, taxation
- Occupational Health and Safety
- and must include:
- security
- privacy
- confidentiality

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range of Variables.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Scope of the objectives and activities for e-business
- Knowledge of e-business and e-business implementation issues

UNIT

BSBEBUS602A Develop an action plan for an e-business strategy

Underpinning Knowledge*

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- e-business environment
- e-business terminology
- General business planning concepts
- Strategic operational and tactical planning methodologies
- Legal, ethical and security issues relating to e-business
- Culture of e-business versus traditional business models
- Implementation issues
- Stakeholders in planning process

Underpinning Skills

- Computer technology skills including database administration
- Literacy skills to research, develop and write e-business action plan
- Numeracy skills for budgetary information
- Communication skills for consultation to determine priorities
- Policy development skills
- Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

Context/s of Assessment

- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
- Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
- Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
- Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

UNIT

BSBEBUS602A Develop an action plan for an e-business strategy**Key Competency Levels**

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 1

Three levels of performance denote level of competency required to perform a task.

1. Perform
2. Administer
3. Design
 - **Collecting, analysing and organising information** – to confirm pre-planning information
 - **Communicating ideas and information** – through reader friendly action plan document
 - **Planning and organising activities** – to prepare action plan
 - **Working with teams and others** – to determine priorities and responsibilities for activities
 - **Using mathematical ideas and techniques** – to estimate budgetary requirements
 - **Solving problems** – to balance infrastructure and process activities against direct income earning activities
 - **Using technology** – to prepare action plan

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

UNIT

BSBEBUS603A Evaluate new technologies for business

Unit Descriptor This unit covers identification of new technologies and evaluation of their suitability to the business.
Consider co-assessment with BSBEBUS605A Identify and implement e-business innovation.

Competency Field e-business

Element	Performance Criteria
1. Investigate new technologies for business	1.1 <i>Capabilities</i> provided by <i>new technologies</i> are identified through research and consultation and their relevance to the business identified 1.2 Changes needed to the business and its culture to take advantage of new technologies are evaluated and costed 1.3 Likely capital expenditure and staff training required to implement new technologies are identified
2. Evaluate the business' capabilities in relation to the use of new technologies	2.1 Existing technology and its <i>level of use</i> in the business is evaluated 2.2 <i>Value chain analysis</i> is completed across the organisation to identify <i>processes and relationships</i> that may benefit from the adoption of new technologies 2.3 Risks and obstacles to utilising new technologies are evaluated and ways to deal with them identified 2.4 Requirements for integrating new technology with existing systems are determined 2.5 Budgetary and other resources available for the adoption of new technologies are identified in accordance with the organisation's business strategy
3. Evaluate suitability of new technology solutions to the business	3.1 Capabilities provided by new technologies are compared with business requirements within given resource parameters and potentially suitable technology identified 3.2 Staff competencies for operating with new technologies are identified and staffing and/or training costs and lead times are determined 3.3 Cost/benefit analysis for new technologies is performed and suitable technologies recommended for acquisition in accordance with organisational requirements

UNIT

BSBEBUS603A Evaluate new technologies for business**Range of Variables**

The Range of Variables provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business

Capabilities provided by new technologies may include:

- linking of email and/or Internet transactions into other (existing) computer systems
- services/applications that can be provided by mobile commerce
- permanent login to corporate networks – able to receive short message service (SMS) at any time
- 24 hour telephone connection (rather than connected at dial up) charged for data transmitted – packet based (voice packets) not time based
- access to information and information services, available anytime, anyplace and anywhere to anybody (wireless)
- fax over IP (Internet Protocol)
- voice over IP
- video streaming services over mobile phones
- improved security for data transmitted by wireless technology

UNIT

BSBEBUS603A Evaluate new technologies for business

New technologies may include:

- mobile technologies eg second generation such as GSM (Global System for Mobile communications)
- 3G (third generation cellular radio for mobile technology, designed to support wideband data communications just as well as voice – the basis for a wireless information society)
- location based services for mobile
- digital signature technology for mobile phone users
- General Packet Radio Services (GPRS)
- WAP (wireless application protocol)
- UMTS (universal mobile telephony system)
- xDSL technologies eg ADSL (Asymmetric Digital Subscriber Line)
- computer telephony integration
- access gateways (to hide type of access that may be via cable modem, mobile telephone, landline, ADSL modem)
- fax gateways
- Bluetooth chips for short distance wireless connections over short distances (alternative to cable)
- EDGE (Enhanced Data rates for GSM Evolution) to increase GSM network capacity and data rates
- Internet telephony
- voice verification technology
- business to business electronic data transfer via internet, web browsers using XML

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range of Variables.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Rationale for new technology recommendations

Underpinning Knowledge

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Reliable sources of information on cutting edge (but not unproven) technology
- Value chain analysis
- Cost/benefit analysis

Underpinning Skills

- Literacy skills to research information on new technologies
- Numeracy skills to conduct cost/benefit analysis
- Computer technology skills
- Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

UNIT	BSBEBUS603A Evaluate new technologies for business
-------------	---

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

Context/s of Assessment

- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
- Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
- Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
- Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels						
<i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 2
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to investigate capabilities provided by new technologies • Communicating ideas and information – through recommendations on acquisition of new technologies • Planning and organising activities – for implementation of new technologies • Working with teams and others – to identify staffing or staff training requirements for implementation of new technology • Using mathematical ideas and techniques – to conduct cost/benefit analysis • Solving problems – to evaluate new technologies • Using technology – to research new technologies <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS604A Develop a business website strategy

Unit Descriptor

This unit covers development of a web strategy that supports the business strategy, determining marketing objectives and strategies for the website and planning its integration into business operations.

This unit is related to BSBEBUS506A Plan and develop a business website and BSBEBUS507A Manage the business aspects of a website. Consider co-assessment with BSBEBUS601A Develop an e-business strategy.

Competency Field

e-business

Element

Performance Criteria

- | | | | |
|----|---|-----|---|
| 1. | Determine the business' requirements of the website | 1.1 | The commercial, business and/or marketing purpose of the website is determined in consultation with <i>relevant personnel</i> in accordance with the organisation's e-business and/or e-marketing strategy |
| | | 1.2 | Business, product / service information for the website is determined in consultation with relevant personnel |
| | | 1.3 | The business image to be projected by the website is determined in consultation with relevant personnel |
| | | 1.4 | <i>Website features/capabilities</i> are determined in consultation with relevant personnel in accordance with the organisation's e-business strategy |
| 2. | Determine business and marketing objectives for the website | 2.1 | Key characteristics, competitive factors and the market situation facing the business and/or its products or services are identified |
| | | 2.2 | Information on the target audience for the website is gathered and analysed |
| | | 2.3 | Website marketing objectives are written in measurable terms and provide specific guidance on what is to be achieved by the website |
| | | 2.4 | A <i>business performance strategy</i> is developed for the website incorporating business objectives for products / services |
| 3. | Develop a website strategy | 3.1 | Strategies to achieve website marketing objectives are determined in accordance with the organisation's e-business and/or e-marketing strategy |
| | | 3.2 | Timeframes for development and implementation of the website are determined in accordance with the organisation's e-business strategy |
| | | 3.3 | A budget for development, setup, hosting and <i>maintenance</i> of the website is determined in accordance with the organisation's overall e-business budget |
| | | 3.4 | The strategy includes an implementation and maintenance plan, strategies to work cooperatively with technical personnel, performance measures and monitoring procedures to measure the marketing effectiveness of the website |
| | | 3.5 | A web content management strategy is developed to ensure up-to-date, relevant, accurate information on the site |
| | | 3.6 | The strategy includes marketing strategies for <i>publicising</i> that the website is available and operational |
| 4. | Plan integration of the website into business operations | 4.1 | Links between the website and <i>operational areas</i> of the business are identified and responsibility for the development of procedures to enable their integration is assigned in accordance with the overall e-business strategy |
| | | 4.2 | Feedback mechanisms and processes are determined to gauge customer satisfaction with the website and the business, and to allow evaluation of the website as a marketing tool |

UNIT

BSBEBUS604A Develop a business website strategy

Range of Variables

The Range of Variables provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business

Relevant personnel may include:

- owner/s
- management
- in-house or contracted marketing personnel
- in-house or contracted technology/technical personnel
- web hosting service personnel
- client stakeholders

Website features/capabilities may include:

- marketing features
- legal requirements
- privacy and confidentiality requirements
- security requirements
- authentication facility or link
- customer service requirements
- shopping cart facilities
- electronic payment facilities
- online catalogues, brochures
- knowledge bases
- frequently asked questions (FAQS)
- thumbnails, image maps etc
- active links
- navigation buttons
- frames, animation, flash etc
- colour, sound, video, graphics, photos
- downloadable files
- search facility
- facility for user feedback on content and operation of website

Business performance strategy may include:

- service objectives
- logistics of product supply, pricing, delivery and inventory management

UNIT

BSBEBUS604A Develop a business website strategy

- Maintenance issues may include:**
- frequency of updates
 - timeliness
 - responsible staff
 - maintenance workload
 - optimisation of feedback
- Publicity strategies may include:**
- use of traditional media publicity
 - newsgroup notice
 - Internet chat room
 - registration with commonly used search engines
 - links to other sites
 - design of site ie key words
- Operational areas may include:**
- marketing and sales
 - customer service
 - supply and dispatch of goods
 - service support / after sales service
 - administration
 - finance
 - training and development
 - user groups

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range of Variables.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Knowledge of the features of a marketing oriented website
- Ways to increase the marketing effectiveness of a website

Underpinning Knowledge*

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Internet
- World Wide Web
- Uniform resource locators (URL)
- Browsers, search engines, web crawlers
- e-business
- e-Marketing principles
- Features of a marketing oriented website
- Ways to increase the marketing effectiveness of a website

UNIT	BSBEBUS604A Develop a business website strategy
-------------	---

- Underpinning Skills**
- Strategic planning
 - Computer technology skills
 - Communication skills to consult with relevant personnel on website purpose, image and capabilities
 - Literacy skills to gather and analyse information on the business, its products/services and the target audience for the website
 - Numeracy skills for costing, and meeting budgetary requirements
 - Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

Consistency of Performance In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

- Context/s of Assessment**
- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
 - Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
 - Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
 - Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels <i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 2
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to determine the target audience for the website • Communicating ideas and information – in consultation with relevant personnel regarding the website purpose and capabilities • Planning and organising activities – to integrate the website into business operations • Working with teams and others – to determine the organisation’s business image to be projected • Using mathematical ideas and techniques – to cost the development, setup and maintenance of the business website • Solving problems – to increase the marketing effectiveness of a website • Using technology – to prepare a business website strategy <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS605A Identify and implement e-business innovation

Unit Descriptor

This unit covers analysis of traditional business processes to identify and implement e-business opportunities for innovation and reform.

Consider co-assessment with BSBEBUS603A Evaluate new technologies for business and BSBEBUS606A Manage e-business risk.

Competency Field

e-business

Element

Performance Criteria

1.	Compare the business with e-businesses	1.1	Information on e-business markets, customers and methods of doing business are investigated
		1.2	The current market for the business and the customer base are analysed and compared with typical e-business markets and customers
		1.3	Current business relationships, business processes and methods of doing business are analysed and contrasted with e-facilitated businesses
2.	Identify e-business opportunities for innovation and reform	2.1	Innovation and reform of <i>aspects of the business</i> through e-business strategies are investigated and opportunities identified
		2.2	Opportunities are assessed for their compatibility with business goals and objectives, and a cost-benefit analysis conducted for each
		2.3	The degree of likely change and the ramifications for the business and its culture are evaluated for each opportunity
		2.4	A risk management analysis is conducted and a plan for dealing with contingencies is formulated in accordance with organisational requirements
		2.5	Opportunities are ranked in terms of their viability and applicability to the organisation
		2.6	Opportunities for innovation are included in the organisation's e-business strategy and prioritised for implementation
3.	Implement e-business innovation	3.1	Aspects of the business are redesigned in an innovative manner using online technologies in accordance with the organisation's e-business strategy
		3.2	e-business innovation/s are integrated into the business and monitored to gauge their usefulness and maximise implementation
		3.3	e-business innovation is reviewed in consultation with users and recommendations for improvement or further innovation documented and evaluated

UNIT

BSBEBUS605A Identify and implement e-business innovation**Range of Variables**

The Range of Variables provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

- | | |
|---|---|
| Legislation, codes and national standards relevant to the workplace may include: | <ul style="list-style-type: none"> • award and enterprise agreements • national, State/Territory legislative requirements especially in regard to Occupational Health and Safety • industry codes of practice • OECD International Guidelines for Consumer Protection in E-Commerce • copyright laws • privacy legislation • intellectual property, confidentiality requirements • legal and regulatory policies affecting e-business |
| e-business is: | <ul style="list-style-type: none"> • every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in <u>E-competent Australia</u>, ANTA, May 2000) |
| Aspects of the business may include: | <ul style="list-style-type: none"> • delivery of products • delivery of core services • customer service • product development • market development |

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range of Variables.

- | | |
|-------------------------------------|---|
| Critical Aspects of Evidence | <ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • Value-added nature of the innovation/redesign of aspects of the business |
| Underpinning Knowledge | <ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • e-business environment • e-business terminology • Business planning processes • Change management • Legal, ethical and security issues relating to e-business • Culture of e-business versus traditional business models • Business process re-engineering • Implementation issues |

UNIT	BSBEBUS605A Identify and implement e-business innovation
-------------	---

- Underpinning Skills**
- Computer technology skills
 - Literacy skills to research e-business information
 - Numeracy skills for cost-benefit analysis
 - Communication skills for consultation with users
 - Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

Consistency of Performance In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

- Context/s of Assessment**
- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
 - Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
 - Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
 - Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels <i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 2	Level 2	Level 2	Level 2
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to identify e-business information • Communicating ideas and information – to identify opportunities for innovation and reform • Planning and organising activities – to redesign aspects of the business • Working with teams and others – to integrate business innovation into the business • Using mathematical ideas and techniques – to conduct cost-benefit analysis and rate opportunities • Solving problems – to determine the viability of e-business opportunities for business innovation • Using technology – to redesign aspects of the business <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS607A Develop e-business outsourcing policy and guidelines

Unit Descriptor This unit covers development of policy and guidelines for e-business outsourcing or contracting by the business.

This unit is related to BSBEBUS509A Implement e-business outsourcing arrangements and BSBEBUS510A Manage e-business outsourcing.

Competency Field e-business

Element**Performance Criteria**

- | | |
|---|---|
| 1. Identify requirements for e-business outsourcing | 1.1 Activities that are core to the business and not available for outsourcing or contracting are identified
1.2 Activities identified as non-core are analysed in terms of their likely future growth and the effect of their outsourcing on control of future business projects, and those <i>suitable for outsourcing</i> identified
1.3 Risks associated with <i>e-business</i> outsourcing or contracting are identified
1.4 <i>Legal and ethical requirements</i> related to e-business outsourcing or contracting are identified
1.5 Expected outcomes for the business from utilising outsourcing or contracting are identified in consultation with <i>relevant personnel</i> |
| 2. Develop policy and guidelines for e-business outsourcing or contracting | 2.1 Policy and <i>guidelines</i> for outsourcing or contracting are developed in accordance with organisational requirements and legal and ethical considerations
2.2 The business' position on outsourcing or contracting is articulated in the policy including conditions under which e-business outsourcing or contracting can occur
2.3 Policy provides a decision-making process for outsourcing or contracting and principles to guide contract management in line with organisational values and direction
2.4 Guidelines identify <i>criteria</i> for identifying business activities for outsourcing or contracting within an identified scope of non-core activities, in accordance with business direction
2.5 Guidelines are developed for risk assessment of potential outsourcing or contracting in accordance with overall e-business strategy
2.6 Guidelines are developed for setting up collaboration, partnering and contracting arrangements, risk management and contract management in accordance with policy direction |
| 3. Implement and monitor effectiveness of policy and guidelines for e-business outsourcing or contracting | 3.1 The policy is implemented and information, learning or development opportunities provided to those managing outsourcing or contracting arrangements, to ensure the guidelines, expected actions and outcomes are understood
3.2 Implementation of the policy and guidelines is monitored and data obtained on its effectiveness in managing outsourcing or contracting while minimising risks to the business
3.3 Feedback is used to make improvements in policy and processes in accordance with organisational requirements and level of authority |

UNIT

BSBEBUS607A Develop e-business outsourcing policy and guidelines

Range of Variables

The Range of Variables provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

- | | |
|---|---|
| Legislation, codes and national standards relevant to the workplace may include: | <ul style="list-style-type: none"> • award and enterprise agreements • national, State/Territory legislative requirements especially in regard to Occupational Health and Safety • industry codes of practice • OECD International Guidelines for Consumer Protection in E-Commerce • legal and regulatory policies affecting e-business |
| Activities suitable for outsourcing may include: | <ul style="list-style-type: none"> • website setup, maintenance and management • online catalogue setup and maintenance • technology maintenance • authentication services • ordering • production • e-marketing • inventory management • labelling • distribution • invoicing • credit card facilities • accounting |
| e-business is: | <ul style="list-style-type: none"> • every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in <u>E-competent Australia</u>, ANTA, May 2000) |
| Legal and ethical requirements may include: | <ul style="list-style-type: none"> • security • privacy • confidentiality • ownership of information • intellectual property • copyright • fraud prevention and detection • aspects of contract law • Trades Practices Act |

UNIT

BSBEBUS607A Develop e-business outsourcing policy and guidelines

- Relevant personnel may include:**
- owner/s
 - board
 - management
 - accounting personnel
 - marketing personnel
 - staff

- Outsourcing criteria may include:**
- cost shifting
 - quality
 - customer needs
 - customer loyalty
 - time to market
 - access to market
 - market share
 - brand building
 - margins

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range of Variables.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Policy and guidelines are practical and effective in meeting organisational requirements for low risk, cost-effective outsourcing or contracting

Underpinning Knowledge

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Policy development
- Organisational requirements
- Legal and ethical considerations
- Contract and risk management issues

Underpinning Skills

- Literacy skills to identify policy requirements and write policy
- Numeracy skills to determine costs and cost effectiveness
- Communication skills to determine organisational needs
- Computer technology skills
- Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

UNIT	BSBEBUS607A Develop e-business outsourcing policy and guidelines
-------------	---

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

Context/s of Assessment

- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
- Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
- Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
- Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels						
<i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 1
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – to determine organisational requirements • Communicating ideas and information – to implement policy and guidelines for outsourcing or contracting • Planning and organising activities – to implement and monitor policy • Working with teams and others – to provide learning opportunities • Using mathematical ideas and techniques – to determine cost effectiveness of policy options • Solving problems – to manage risk • Using technology – to prepare policy documents <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS609A Develop a knowledge management strategy for an e-business

Unit Descriptor	This unit covers analysis of existing systems, determining e-business requirements for knowledge management and developing a strategy to meet those requirements. Consider co-assessment with BSBEBUS608A Develop and implement online information policy.
Competency Field	e-business

Element		Performance Criteria	
1.	Analyse existing knowledge management arrangements	1.1	Existing arrangements for the capture and use of e-business knowledge and information from internal and external sources are identified
		1.2	Arrangements for managing knowledge are distinguished from information management and understanding of the importance of knowledge management in the organisation identified
		1.3	The effectiveness of existing procedures and systems is evaluated in terms of meeting the needs of clients, organisational aims, objectives and standards
		1.4	Improvements are identified in the organisation's strategic use of knowledge and a cost-benefit analysis prepared
2.	Evaluate knowledge management options	2.1	Methods for capturing and using the knowledge held by people within an e-business are investigated and barriers to their use identified and evaluated
		2.2	<i>Knowledge management software</i> is evaluated and recommendations made regarding its usefulness and likely benefit to the organisation
		2.3	Incentives and reward systems to support knowledge management are investigated for their relevance to an e-business
		2.4	Business non-technical requirements for maintenance of and <i>access</i> to an integrated knowledge database for the e-business are determined in accordance with organisational requirements
3.	Develop a knowledge management strategy	3.1	A business strategy is developed in consultation with staff for the capture and strategic use of organisational knowledge
		3.2	Business processes are designed to support knowledge management in accordance with the organisation's e-business strategy and budget
		3.3	An executive support system is planned as part of the knowledge management strategy to improve managerial decision making in accordance with organisational requirements
		3.4	Technology requirements for implementation of the strategy are costed and included in e-business budgeting
		3.5	Processes for the periodic review of knowledge management within the e-business are designed or re-designed to ensure ongoing efficiency and effectiveness
		3.6	The knowledge management strategy meets organisational requirements identified in its overall business plan and e-business strategy

UNIT

BSBEBUS609A Develop a knowledge management strategy for an e-business

Range of Variables

The Range of Variables provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- defamation laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business

e-business is:

- every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in E-competent Australia, ANTA, May 2000)

Access may include:

- user friendliness of interface

Knowledge management software may include:

- specialist knowledge management software
- non-specialist software features such as diary notes and calendar notes

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range of Variables.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Choice of knowledge management option meets organisational requirements
- The importance of knowledge management in contemporary organisations

Underpinning Knowledge

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- Internal and external sources of information
- Structure of the e-business
- Culture of e-business versus traditional business models
- Legal, ethical and security issues relating to knowledge management
- Records management principles
- Database design concepts
- e-business environment

UNIT	BSBEBUS609A Develop a knowledge management strategy for an e-business
-------------	---

- Underpinning Skills**
- Technology skills
 - Literacy skills to identify existing procedures and compare options
 - Research skills
 - Numeracy skills for costing and budgeting
 - Communication skills for consultation with staff and suppliers
 - Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

Consistency of Performance In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

- Context/s of Assessment**
- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
 - Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
 - Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
 - Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels	<i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>
------------------------------	---

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 2	Level 3	Level 3	Level 1	Level 3	Level 2

Three levels of performance denote level of competency required to perform a task.

1. Perform
2. Administer
3. Design

- **Collecting, analysing and organising information** – to evaluate existing arrangements for knowledge management
- **Communicating ideas and information** – through a knowledge management strategy
- **Planning and organising activities** – to design business processes to support knowledge management
- **Working with teams and others** – to evaluate barriers to the implementation of knowledge management procedures within an e-business
- **Using mathematical ideas and techniques** – to assess for costing and budgeting
- **Solving problems** – to identify a strategy for knowledge management within an e-business
- **Using technology** – to manage e-business organisational knowledge

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

UNIT	BSBEBUS613A Develop online customer service strategies
-------------	--

Unit Descriptor This unit covers investigating requirements for online customer service, development of policy and strategies for the delivery of customer services and monitoring and evaluation of policy implementation.

This unit relates to BSBEBUS408A Implement and monitor delivery of quality customer service online. Consider co-assessment with BSBEBUS614A Build online customer loyalty.

Competency Field e-business

Element	Performance Criteria
1. Determine customer service requirements for online products and services	1.1 <i>Customer service requirements</i> are determined through market research and feedback from <i>customers</i> and staff on existing online customer service
	1.2 A range of customer services available through other organisations are analysed and compared with current operations
	1.3 <i>Customer service data</i> is captured online and analysed to identify levels of satisfaction and emerging trends
2. Develop a customer service policy for an e-business	2.1 Customer service policy addresses security and privacy issues, customer service standards, product and service quality, and e-marketing standards
	2.2 Customer service standards cover legal and ethical requirements, on and off-line communication protocols, pricing policy, conduct of business transactions and dealing with difficult situations/customers
	2.3 The policy provides for the resolution of <i>customer difficulties and complaints</i> , including refund /replacement policies and guarantees
	2.4 The policy integrates online customer service into business processes
3. Develop online customer service strategies	3.1 A strategy is <i>developed</i> to establish/build trust in the business by online customers by addressing concerns about security, privacy and confidentiality
	3.2 Customers are provided with relevant, accurate and current online information regarding products, services, prices and warranties
	3.3 Online customer feedback procedures are established in accordance with organisational requirements
	3.4 On and off-line procedures are developed to resolve customer difficulties and complaints in accordance with organisational policy
4. Evaluate online customer service	4.1 Customer satisfaction with service delivery is evaluated using feedback data from customers and staff
	4.2 Customer service is monitored against the standards and changes necessary to maintain or improve service are identified in accordance with organisational requirements
	4.3 Online systems, records and reporting procedures are maintained to compare changes in customer satisfaction over time in accordance with organisational requirements

UNIT

BSBEBUS613A Develop online customer service strategies

Range of Variables

The Range of Variables provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace may include:

- award and enterprise agreements
- national, State/Territory legislative requirements especially in regard to Occupational Health and Safety
- industry codes of practice
- OECD International Guidelines for Consumer Protection in E-Commerce
- copyright laws
- defamation laws
- privacy legislation
- intellectual property, confidentiality requirements
- legal and regulatory policies affecting e-business

e-business is:

- every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in E-competent Australia, ANTA, May 2000)

Customer service requirements may include:

- advice or general information
- specific information
- further information
- complaints
- purchasing online products and services
- returning online products and services
- accuracy of information
- fairness
- promptness/politeness of response
- prices/value
- access to call centre

Customer service data may include:

- website access history
- purchasing history
- transaction values
- promotion responses
- acquisition sources

Customers may include:

- internal or external
- other agencies
- individual members of the organisation
- corporate customers
- individual members of the public

UNIT

BSBEBUS613A Develop online customer service strategies

Customer difficulties and complaints may include:

- difficulty accessing services
- customer dissatisfaction with service quality
- services not available
- unfriendly website design
- website faults
- inactive links
- time taken to access services
- administrative errors such as incorrect invoices or prices
- supply errors such as incorrect product delivered
- service errors
- delivery errors
- products not delivered on time
- damaged goods or goods not delivered
- software interface problems

Strategy development may include:

- new strategies researched and developed from scratch
- adaptation of other organisation's policies

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range of Variables.

Critical Aspects of Evidence

- Integrated demonstration of all elements of competency and their performance criteria
- Determination of the source and level of customer dissatisfaction and refining strategies in response

Underpinning Knowledge*

* Required knowledge/skills is to be limited to that which is sufficient to perform the particular workplace competency

- Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- e-business culture
- e-business terminology
- Principles of customer service and its application to an online environment
- Customer concerns with online business
- Techniques for dealing with customers with special needs
- Legal and ethical requirements

Underpinning Skills

- Computer skills for data analysis
- Literacy skills to interpret requirements and develop policy and strategies
- Communication skills to review customer service and implement strategies
- Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

UNIT	BSBEBUS613A Develop online customer service strategies
-------------	---

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

Context/s of Assessment

- Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables
- Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package
- Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment
- Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels						
<i>NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.</i>						
Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 2	Level 3	Level 2	Level 3	Level 1
<p>Three levels of performance denote level of competency required to perform a task.</p> <ol style="list-style-type: none"> 1. Perform 2. Administer 3. Design <ul style="list-style-type: none"> • Collecting, analysing and organising information – determine customer service requirements • Communicating ideas and information – through policies and strategies for online customer service • Planning and organising activities – to monitor and evaluate online customer service • Working with teams and others – to gather feedback from customers and staff • Using mathematical ideas and techniques – to analyse online data • Solving problems – to match services to customer skill levels • Using technology – to analyse online data <p><i>Please refer to the Assessment Guidelines for advice on how to use the Key Competencies</i></p>						

UNIT

BSBEBUS616A Plan an e-business supply chain

Unit Descriptor This unit covers development of a strategy and model for supply chain management in an e-business. This unit relates to BSBEBUS518A Manage an e-business supply chain.

Competency Field e-business

Element	Performance Criteria
1. Determine the requirements of the e-business supply chain	<p>1.1 Components of the e-business <i>supply chain</i> are identified and their links and inter-relationships analysed</p> <p>1.2 Communication, <i>data</i> access, information sharing and <i>technology</i> requirements for an integrated e-business supply chain are determined</p> <p>1.3 Requirements for collaborative planning, forecasting and 'just in time' supply are identified</p> <p>1.4 e-business supply chain requirements are documented in accordance with organisational requirements</p>
2. Determine a strategy for supply chain management for e-business	<p>2.1 Objectives for the supply chain are determined that cover outsourcing, choice of suppliers and partners, re-shaping contractual relationships and the performance of the entire supply chain rather than individual online suppliers</p> <p>2.2 The strategy includes matching supplier capability to the requirements determined for the supply chain and strategies to optimise electronic information sharing and inventory risk management</p> <p>2.3 Strategies to build trust and a corporate supply chain culture and to create strategic alliances with supply partners are identified</p> <p>2.4 The strategy identifies performance measures related to how well the product meets end-user needs, rather than judging each level of the supply chain on their specific roles</p> <p>2.5 Supply chain management strategy includes e-business strategies for business-to-business buying, selling and payment</p> <p>2.6 The strategy addresses legal, ethical and security issues relating to supply chain management</p> <p>2.7 The strategy includes the integration of e-business supply chain processes into existing business processes</p>
3. Develop a model for e-business supply chain management	<p>3.1 e-business supply chain management options are researched and strengths and weaknesses of each option identified</p> <p>3.2 <i>Demand chain management</i> models are investigated and their requirements analysed and compared with the capability and culture of the e-business' supply chain</p> <p>3.3 A demand-driven model for supply chain management is developed that meet the needs of the e-business for information flow, collaborative planning and forecasting in accordance with the supply chain management strategy</p> <p>3.4 The supply chain management model is developed to support lower inventory and operating costs, faster cycle times and greater customer satisfaction</p>

UNIT

BSBEBUS616A Plan an e-business supply chain

Range of Variables

The Range of Variables provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

- | | |
|---|---|
| Legislation, codes and national standards relevant to the workplace may include: | <ul style="list-style-type: none"> • award and enterprise agreements • national, State/Territory legislative requirements especially in regard to Occupational Health and Safety • industry codes of practice • OECD International Guidelines for Consumer Protection in E-Commerce • copyright laws • privacy legislation • intellectual property, confidentiality requirements • legal and regulatory policies affecting e-business |
| e-business is: | <ul style="list-style-type: none"> • every type of business transaction in which the participants (ie suppliers, end users etc) prepare or transact business or conduct their trade in goods or services electronically (Definition of e-commerce in <u>E-competent Australia</u>, ANTA, May 2000) |
| Supply chain may include: | <ul style="list-style-type: none"> • the entire cycle from raw materials to producers, component suppliers, manufacturers, wholesalers, 3rd party service providers, retailers, customers and recyclers, plus freight, distribution and cash flow • the use of open and international supply chain management standards e.g. EAN.UCC |
| Data may include: | <ul style="list-style-type: none"> • logistics databases • product shipment data • inventory data • real-time warehouse inventory status • electronic data interchange (EDI) • electronic catalogues |
| Technology requirements may include: | <ul style="list-style-type: none"> • information technology to smooth the flow of data • WAP (wireless application protocol) to allow personnel to access logistics databases via handheld or palm-sized devices • RFID (Radio Frequency Identification), barcoding and scanning technology |
| Demand chain management is: | <ul style="list-style-type: none"> • a collaborative process that involves determining how much product needs to be produced at each level of the supply chain through to the end customer |

UNIT

BSBEBUS616A Plan an e-business supply chain

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range of Variables.

Critical Aspects of Evidence	<ul style="list-style-type: none"> • Integrated demonstration of all elements of competency and their performance criteria • A strategy that promotes collaboration rather than competition between levels of the supply chain and meets the e-business' need for online processes
Underpinning Knowledge	<ul style="list-style-type: none"> • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Supply chain management • e-business • e-business terminology • Open and international standards e.g. EAN.UCC • Accepted and emerging models for supply chain management and demand chain management • Legal, ethical and security issues relating to supply chain management • Ways to built trust and collaboration as opposed to competition
Underpinning Skills	<ul style="list-style-type: none"> • Computer technology skills • Literacy skills to identify and plan implementation of a supply chain management model • Numeracy skills for measuring inventory and operating costs • Ability to relate to stakeholders from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace
Consistency of Performance	In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations
Context/s of Assessment	<ul style="list-style-type: none"> • Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range of Variables • Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package • Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment • Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

UNIT

BSBEBUS616A Plan an e-business supply chain

Key Competency Levels

NB: These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
Level 3	Level 3	Level 3	Level 3	Level 2	Level 3	Level 2

Three levels of performance denote level of competency required to perform a task.

1. Perform
2. Administer
3. Design
 - **Collecting, analysing and organising information** – to determine the requirements of supply chain management for an e-business
 - **Communicating ideas and information** – through the supply chain management strategy
 - **Planning and organising activities** – to build a supply chain management model
 - **Working with teams and others** – to build a supply chain management corporate culture
 - **Using mathematical ideas and techniques** – to measure inventory and operating costs
 - **Solving problems** – to match supply chain to the e-business' requirements
 - **Using technology** – to share information and data within the supply chain

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

UNIT	BSZ406A	Plan a series of training sessions
-------------	----------------	---

DESCRIPTOR

This unit covers the requirement for persons who implement a training program for a target group. This involves planning a series of training sessions to meet the identified competency requirements of the target group.

ELEMENT	PERFORMANCE CRITERIA
1. Identify training requirements	1.1 Current competencies of the target group are identified 1.2 Relevant training package documentation or approved training course documentation is obtained where applicable 1.3 Qualification requirements, competencies and/or other performance standards to be attained are interpreted 1.4 Training requirements are identified from the gap between the required competencies and the current competencies of the target group 1.5 Training requirements are confirmed with appropriate personnel
2. Develop outlines of training sessions	2.1 The training program goals, outcomes, performance and underpinning knowledge requirements are identified 2.2 The training program requirements, workplace application, activities and tasks required to develop the requisite competencies are analysed 2.3 A range of training delivery methods are identified which are appropriate for: <ul style="list-style-type: none"> ◦ the competencies to be achieved ◦ training program's goals ◦ characteristics of training participants ◦ language, literacy and numeracy skill level of training participants ◦ availability of equipment and resources ◦ Industry/enterprise contexts and requirements 2.4 Training session outlines are mapped against required competencies and deficiencies are identified and addressed 2.5 Special requirements for resources, particular practice requirements and training experiences are documented 2.6 Methods of supporting and guiding training participants including appropriate training resources, language literacy and numeracy support are specified
3. Develop training materials	3.1 Available materials to support the training program are checked for relevance and appropriateness in terms of the language, style, characteristics of training participants and copyright 3.2 Existing materials are customised or resources are developed to enhance the learning capability of training participants to achieve in the delivery setting 3.3 Instructions for use of learning materials and any required equipment are provided 3.4 Copyright laws are observed 3.5 Training resource costs are identified and approvals are obtained from appropriate personnel 3.6 Documentation, resources and materials developed or used are clear and comprehensible

UNIT	BSZ406A Plan a series of training sessions	
	4. Develop training sessions	<p>4.1 Training session plans are developed to meet the goals of the training program</p> <p>4.2 Training session plans specify session planned outcomes</p> <p>4.3 Opportunities are created within training session design for participants to manage own competency acquisition and apply the relevant competencies in practice</p> <p>4.4 Session plans identify delivery methods which are appropriate for:</p> <ul style="list-style-type: none"> ◦ the competency to be achieved ◦ training program's goals ◦ training participants' characteristics ◦ language, literacy and numeracy skill level of training participants ◦ learning resources and facilities to be used ◦ equipment and consumable resources available ◦ industry/enterprise/workplace contexts and requirements ◦ each outlined training session <p>4.5 Training sessions are designed to measure participant progress towards the program goals</p> <p>4.6 Sequence and timing of the training sessions are documented</p>
	5. Arrange resources	<p>5.1 Resources required for the training sessions are identified and, where special access is required, approved by appropriate personnel</p> <p>5.2 Appropriate training locations are identified and arranged</p> <p>5.3 Arrangements are made with (any) additional personnel required to support the training program</p> <p>5.4 The training environment arranged is safe, accessible and suitable for the acquisition of the identified competencies</p> <p>5.5 Learning resources, documentation on required competencies, assessment procedures and information on available support for training participants is organised and held in an accessible form</p>

RANGE OF VARIABLES

Training program may include:

A collection of training activities to meet competency requirements and target group and client needs. Clients provide the approvals for expenditure of training resources. Target group is the group for whom training is available and may include:

- employee groups (eg particular classification or work area, female employees)
- groups or individuals with special training and/or recognition needs.

Training may be conducted:

- on the job
- in a simulated setting
- in a training organisation
- in a combination of locations to suit the units of competency being learned and/or assessed
- in a single site or multi site operation
- in a work environment.

UNIT

BSZ406A

Plan a series of training sessions

Appropriate personnel may include:

- trainers/teachers and assessors
- team leaders/supervisors/managers/employers
- participant/employee/learner
- technical /subject experts
- government regulatory bodies
- union/employee representatives
- consultative committees
- users of training information such as training providers, employers, human resource departments
- State/Territory Training/Recognition Authorities
- language, literacy, numeracy specialists
- assessment/training partners.

Training programs may be based on:

- national industry training packages
- enterprise training packages
- national, state and local curriculum
- enterprise based standards, standards of performance or curriculum
- international standards
- international programs.

Target group competencies may be identified by:

- reports on assessment of competencies
- content analysis of curriculum vitae
- enterprise training and assessment record keeping system
- industry training and assessment recording system
- self, peer or supervisor reports.

Training sessions may involve:

- theory
- demonstration
- combination of the two.

Training programs may involve:

- enterprise based delivery
- provider based delivery
 - fee for service
 - local, state or national curricula
- community based delivery
- school based delivery
- international programs
- combination of the above.

Characteristics of participants include:

- language, literacy and numeracy needs
- cultural and language background
- educational background or general knowledge
- gender
- age
- physical ability
- previous experience with the topic
- experience in training and assessment
- level of confidence, nervousness or anxiety
- work organisation or roster.

UNIT

BSZ406A

Plan a series of training sessions

Variables for achieving competency include:

- characteristics of training participants
- resources (time, location, space, people and costs)
- language, literacy and numeracy issues.

Training delivery methods include:

- face to face
- distance
- lock step, partly self paced, all self paced
- trainer centred, participant centred
- real time, time independent
- place dependent, place independent
- interactive (eg audio or video conferencing, computer assisted, discussion).

Materials may include:

- non-endorsed components of an industry training package
- work books
- language, literacy and numeracy support/integrated training materials
- workshop guides
- background reading materials/documents
- handouts
- industry/enterprise competency standards
- supportive policies and legislation.

Training support may include:

- technical and subject experts
- language and literacy specialists
- team leaders/supervisors/managers/employers
- specific enterprises
- assessment/training partners
- trainers/teachers and assessors
- training and assessment coordinators.

Practice opportunities may include:

- on the job
- off the job but located in participant's workplace
- off the job in a special demonstration area
- off the job in an external training room
- work/field placements
- job rotation
- or a combination of the above.

Training activities and tasks may include:

- oral presentations
- simulation activities
- project work
- group activities
- practical demonstrations
- assignments
- laboratory work
- shadowing, coaching, mentoring
- computer based learning
- role plays
- interviews
- discussion groups
- surveys

UNIT

BSZ406A

Plan a series of training sessions

- action learning
- on the job learning
- off the job learning
- practical placements.

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment requires evidence of the following products to be collected:

- Description of target group, characteristics of training participants and appropriate personnel
- Outline of training program requirements to deliver training sessions, including any variables to meet to meet the characteristics of training participants
- Training session plans
- Samples of training materials
- Documentation of resources, assessment procedures and support needed in training delivery.

Assessment requires evidence of the following processes to be provided:

- How appropriate personnel were consulted
- How consultation took place with appropriate how the session plans meet competency requirements and characteristics of training participants
- How the training was made accessible and effective for all training participants
- How training materials and resources were selected
- How training materials were prepared
- Why training methods of delivery were selected
- How/why training delivery was modified
- How language, literacy and numeracy issues were taken into consideration in the planning process.

INTERDEPENDENT ASSESSMENT OF UNITS

This unit of competency may be assessed in conjunction with other units that form part of a job role.

REQUIRED KNOWLEDGE AND SKILLS

- Assessment and Workplace Training Competency Standards
- Relevant competency standards, including industry or enterprise standards of performance
- Relationships of competencies to industrial agreements, classification systems and Australian Qualifications Framework (AQF)
- Relevant workplace policies and procedures that apply to that work and (any) related legislation or regulatory requirements
- Competency in unit(s) of competency relevant to the training program
- Principles of adult learning and competency based training
- Identification and correct use of equipment, processes and procedures relevant to unit(s) of competencies
- Appropriate methods of analysis and planning
- Sources of assistance for participants requiring language or other particular training support
- Planning own work, including predicting consequences and identifying improvements
- Language, literacy and numeracy skills to:
 - collect, summarise and interpret relevant information to plan a series of programs
 - communicate in spoken and written form with a range of people in specified training context
 - adjust spoken and written language to suit audience
 - prepare and/or customise training materials and specified documentation using clear and comprehensible language and layout
 - calculate and estimate costs, time and length of training sessions
- Awareness of language, literacy and numeracy issues relevant to the context of training and assessment, including current theories on the integration of LL&N with technical training
- Application of cultural understanding in the context of training and assessment

Resource implications

Access to target group, competency training program including relevant standards and resources.

UNIT	BSZ406A	Plan a series of training sessions
------	----------------	---

Consistency in performance may include

Competency in this unit needs to be assessed over a period of time, on multiple occasions, and in a range of contexts involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

Assessment may occur on the job or in a simulated workplace.

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	2	3	3

UNIT

BSZ501A

Analyse competency requirements

DESCRIPTOR

This unit applies to persons required to research and document competency requirements. It covers that including identification and review of relevant sources of information, and development of an implementation plan.

ELEMENT	PERFORMANCE CRITERIA
1. Identify client competency needs	1.1 The client and stakeholders are consulted to identify and document client competency needs 1.2 Competency needs are defined using information collected from stakeholders 1.3 The needs are grouped according to type, priority and possible solutions
2. Undertake needs analysis	2.1 A plan is developed for the needs analysis outlining: <ul style="list-style-type: none"> ◦ outcomes ◦ resources ◦ timelines ◦ personnel and responsibilities ◦ target group(s) ◦ sources of information 2.2 Sources of information in relation to competency needs and the scope of the competencies are identified 2.3 Data gathering methods are adapted/ developed for efficient, reliable and valid information collection 2.4 Any requirements of qualifications or assessment or training recognition bodies are identified 2.5 Information is collected, organised and analysed to identify competency components 2.6 Groupings of competencies are established to suit the requirements for competency development of the target group(s)
3. Confirm findings of research	3.1 Consultations with stakeholders are conducted to verify research accuracy, useability within the intended context(s) and validity for the target group(s) 3.2 Priorities for implementation of competency development are determined in terms of business goals, individual and organisational effectiveness, resource implications, cost benefit and lead time requirements 3.4 Identified priorities and competencies are documented and validated by stakeholders
4. Document competency requirements	4.1 Competency requirements are documented in a manner appropriate to client needs 4.2 Combinations of competencies are identified to match the required: <ul style="list-style-type: none"> ◦ business goals of the client organisation ◦ job roles ◦ skills related career paths ◦ classifications ◦ position descriptions ◦ training programs ◦ appraisal requirements ◦ licensing or accreditation conditions 4.3 Implementation plan is developed including: <ul style="list-style-type: none"> ◦ marketing and promotion ◦ resource allocation ◦ timelines

UNIT	BSZ501A Analyse competency requirements	
	5. Validate competencies and implementation plan	5.1 Stakeholders are involved in the validation of documented competencies and implementation plan and established processes are used to approve documentation 5.2 Adjustments to documentation are made as required 5.3 Documentation is approved through established processes 5.4 Any changes in related procedures, policies and processes are endorsed by stakeholders for implementation

RANGE OF VARIABLES

Clients needs may include:

- increased productivity
- increased enterprise profitability
- attainment of specified industry or enterprise competencies
- achievement of community priorities
- achievement of government priorities
- regulation or licensing requirements.

Stakeholders may include:

- industry/professional/trade associations
- trainers/teachers and assessors
- team leaders/managers/employers
- training and assessment coordinators
- participants/employees/learners
- technical experts
- government regulatory bodies
- union/employee representatives
- consultative committees
- relevant industry training advisory bodies
- funding bodies
- State/Territory Training/Recognition Authorities.

Competency needs may include:

- adaptation of industry competency standards to meet business goals
- design or review of training program(s)
- identification of productivity and other improvements
- access and equity considerations
- human resources considerations (eg. classification structure).

Sources of information may include:

- industry/enterprise competency standards, including international information
- training packages
- curriculum and other training program information
- licensing requirements
- government legislation, policies and practices
- job descriptions
- observations of competent workers
- enterprise skills audit reports
- industry skills audit reports
- workplace conditions, policies and standard operating procedures
- benchmarking reports
- industry publications or reports
- market needs analysis reports
- quality assurance procedures.

UNIT

BSZ501A

Analyse competency requirements

Data gathering methods may include:

- survey methods
- interviews
- delphi procedures
- nominal group techniques
- concept mapping
- focus groups
- job and task analysis
- analysis of assessment and/or training records.

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment requires evidence of the following products to be collected:

- Documented client competency needs
- Competency needs analysis plan
- Report of research into competency needs
- Classification of need according to type, priority and possible solution
- Documented competencies
- Implementation plan.

Assessment requires evidence of the following processes to be provided:

- How the client and stakeholders were consulted to identify competency requirements
- How the needs analysis and competencies proposed will contribute to organisational effectiveness
- Why particular data gathering method(s) was used
- How the data gathering methods and any other instrument(s) used were checked for validity, reliability, cost-effectiveness, administration ease, acceptability and appropriateness
- How the implementation plan was developed.

Interdependent assessment of units:

This unit may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills:

- Any relevant competency standards, assessment guidelines and Australian Qualifications Framework (AQF)
- Relationship of the competencies, any industrial agreements and skill based classification systems with organisation effectiveness
- Understanding of data gathering and needs analysis theory and methodology
- Language and literacy skills required to comprehend sources of information and to prepare required documentation in a clear and comprehensible format
- Planning of own work including predicting consequences and identifying improvements
- Compliance with requirements for copyright and other regulatory requirements
- Communication skills appropriate to the culture of the workplace.

Resource implications

Access to relevant clients, stakeholders and sources of information required in needs analysis.

Consistency in performance:

Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

Assessment may occur on the job or in a simulated workplace.

KEY COMPETENCIES

Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT

BSZ502A

Design and establish the training system

DESCRIPTOR

This unit covers the requirements for a person to design and establish a training system.

ELEMENT	PERFORMANCE CRITERIA
1. Determine boundaries of the training	1.1 Services are determined and established through consultation with the client and stakeholders and a training policy documented 1.2 Stakeholder relationships are maintained through a range of communication mechanisms and the establishment of a service support structure 1.3 The financial, physical and human resources available to support the system are identified within agreed quality assurance procedures
2. Determine training system features	2.1 The key operational features and constraints of the training system are determined in consultation with stakeholders: 2.2 The key operational features of the system are verified with appropriate personnel and clients and the agreed features of the system are documented
3. Match needs with resources	3.1 The expertise and roles of internal and external individuals and organisations/partners are identified 3.2 A budget, detailing development costs, implementation and maintenance costs of the proposed system, is developed, including partner organisations, if applicable
4. Design and develop a training records system	4.1 The record keeping system is designed to allow easy tracking of training participants progress as well as other agreed features 4.2 The record keeping system allows for the storage of detailed information and is designed to be secure, confidential, easy to administer and update 4.3 The record keeping system is developed to allow for appropriate quality assurance requirements and verified for compliance with accepted enterprise/ industry procedures for record keeping and legislative requirements 4.4 The record keeping system is designed and verified to allow for fair and consistent responses to grievances 4.5 The record keeping system is designed to ensure that relevant legislative and regulatory requirements are met
5. Establish procedures for the review of training	5.1 Review procedures are developed and documented in consultation with stakeholders
6. Select and provide for training of system users	6.1 The required mix of personnel and competencies to implement the training system are identified 6.2 Appropriate training strategies are identified modified or developed for trainers and other personnel involved in the training system to acquire competencies 6.3 The training programs selected or developed for assessors and trainers are verified to meet the Assessment and Workplace Training Competency Standards and other relevant competency standards
7. Establish quality assurance procedures	7.1 A quality assurance team or committee is established in consultation with appropriate personnel 7.2 Quality assurance procedures, including verification processes are developed in consultation with appropriate personnel 7.2 The verification processes involves a representative sample of training activities and makes effective use of resources 7.3 The quality assurance procedures are trialled for fairness, efficiency and effectiveness 7.4 The quality assurance procedures are documented and distributed to trainers and other appropriate personnel 7.5 Procedures are established to determine the level of compliance with the training system

UNIT

BSZ502A

Design and establish the training system

RANGE OF VARIABLES**Clients' needs may include:**

- increased productivity
- increased enterprise profitability
- attainment of specified industry or enterprise competencies
- achievement of community priorities
- achievement of government priorities
- licensing or accreditation requirements.

Stakeholders may include:

- industry/professional/trade associations
- trainers/teachers and assessors
- team leaders/managers/employers
- training and assessment coordinators
- participants/employees/learners
- technical experts
- government regulatory bodies
- union/employee representatives
- consultative committees
- relevant industry training advisory bodies
- funding bodies
- State/Territory Training/Recognition Authorities.

Partners may include:

- public/private/community training providers
- schools
- universities
- enterprises
- industry organisations
- international organisations
- government agencies
- community organisations
- individuals including technical experts, training and/or assessment specialists.

Key operational features may include:

- the purpose of the training and the relevant competency outcomes of the training
- competencies and certification required of trainers
- record keeping system requirements, procedures and policies
- training context requirements and procedures to match identified competencies
- characteristics of training participants
- any allowable adjustments to the training methods for training participants
- access and equity considerations
- relevant commonwealth/state or territory legislative and regulatory requirements
- arrangements for recognition of competencies
- partnership arrangements
- location of training
- the review and evaluation process including quality assurance procedures
- allocation of costs/fees (if applicable)
- marketing/promotion of system.

UNIT

BSZ502A

Design and establish the training system

Operational constraints may include:

- time available
- relative cost implications
- budgetary constraints
- geographical and resource constraints
- availability of stakeholders and other personnel.

Purpose of training may include:

- productivity improvement
- professional development requirements
- competency acquisition
- induction of new employees
- refresher training for competency maintenance
- legislative or government regulatory requirements
- access and equity considerations.

Characteristics of participants may include:

- language, literacy and numeracy needs
- cultural, language and educational background
- gender
- physical ability
- level of confidence, nervousness or anxiety
- age
- experience with topic
- learning styles
- work/family commitments
- reasons for undertaking training.

Record system may be:

- paper based system, such as forms or checklists
- computer-based system using magnetic or optical storage
- or a combination of both paper and computer-based system.

NB-statutory and government regulations for maintaining records may vary.

Quality assurance procedures may include:

- conduct of regular internal and external reviews (person(s) being trained, peer, self and supervisor)
- professional development of participants
- sampling and evaluation of implementation of competencies
- assessment of the assessors'/trainers' competencies
- modifications of the competency system based on evaluation and reviews
- promotion of regular networking amongst developers, assessors/trainers and peer review amongst persons responsible for planning, conducting and reviewing assessments/training within the system.

UNIT

BSZ502A

Design and establish the training system

Sources of information may include:

- industry/enterprise competency standards, including international information
- training packages
- curriculum and other training program information
- licensing requirements
- government legislation, policies and practices
- job descriptions
- observations of competent workers
- enterprise skills audit reports
- industry skills audit reports
- workplace conditions, policies and standard operating procedures
- benchmarking reports
- industry publications or reports
- market needs analysis reports
- quality assurance procedures.

Policy may include:**purposes of training****industrial relations issues****what and who is to be trained****timing of training****links with other human resources functions****appeal/review mechanisms****criteria for making decisions of competent, or not yet competent****number of trainers****allowable adjustments to training /assessment to suit characteristics of training participants****record keeping requirements****recognition of prior learning/recognition of current competencies****development costs and resources****evaluation****licensing arrangements****qualifications.****EVIDENCE GUIDE****Critical aspects of evidence***Assessment requires evidence of the following products to be collected:*

- Training policy
- Description of the client and stakeholders
- Documentation on the features of the training system
- Report on sources of information researched to determine training system
- Summary of available financial, physical and human resources
- Analysis of possible constraints for training implementation
- Report of the design, development, maintenance and security of the record keeping system
- Documented review procedures for training system
- Description of selection criteria and training programs for trainers and other personnel involved in the training system
- Documentation of quality assurance mechanisms.

UNIT

BSZ502A

Design and establish the training system

Assessment requires evidence of the following processes to be provided:

- How stakeholders were consulted and agreement was reached on operational features and quality assurance procedures
- How the following criteria were incorporated in the training system:
 - fairness, equity and accessibility of the training system
 - security and access requirements of the record keeping system
 - selection criteria for training personnel
 - selection and training of training personnel
 - feasibility, cost effectiveness and practicability of training system
 - review procedures, currency of records
 - currency of records
- How and why information needed in the development of the training system was sourced
- How the resources needed were researched and availability confirmed
- How the features of the training system, implementation plan and quality assurance procedures were verified.

Interdependent assessment of units

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills:

- Language and literacy skills to comprehend sources of information and to prepare required documentation
- Familiarity with relevant industry/enterprise competency or performance standards
- Analysis of competencies to determine appropriate training system requirements
- Knowledge of quality assurance methodology
- Knowledge of record keeping systems, particularly those related to training
- Knowledge of compliance requirements for copyright and other regulatory requirements
- Knowledge of client work systems and equipment.
- Identification and correct use of equipment, processes and procedures:
- Knowledge of review/evaluation methodology, particularly as it relates to training
- Planning own work including predicting consequences and identifying improvements
- Communication skills appropriate to the culture of the workplace.

Resource implications

Access to clients, sources of information and resources for the development of a training system.

Consistency in performance

Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

Assessment may occur on the job or simulated workplace.

KEY COMPETENCIES

Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT

BSZ503A

Design and establish the assessment system

DESCRIPTOR

This unit covers the requirements for a person to design and establish an assessment system.

ELEMENT	PERFORMANCE CRITERIA
1. Determine client needs	1.1 The needs of the client are identified 1.2 Client services are determined and established to stakeholders' satisfaction 1.3 Stakeholder relationships are maintained through a range of communication mechanisms 1.4 A service support structure is established and made known to clients
2. Determine assessment boundaries	2.1 The purpose(s) of the assessment system is established through consultation with the client and other stakeholders 2.2 A policy document is developed in consultation with stakeholders and clients 2.3 The financial, physical and human resources available to support the system are determined within agreed quality assurance procedures are identified 2.4 The system is verified to take into account the realities and constraints of particular contexts
3. Establish assessment system features	3.1 The key operational features of the system are determined in consultation with stakeholders 3.2 The key operational features of the system are verified for fairness, equity and access with appropriate personnel and agreed features documented
4. Match needs with resources	4.1 Applicable competency standards or other performance standards are identified 4.2 The expertise and roles of internal and external individuals and organisations/partners are identified 4.3 A budget, detailing development costs, implementation and maintenance costs of the proposed assessment system, is developed in consultation with appropriate personnel, including partner organisations, if applicable
5. Design and develop record system	5.1 A record keeping system is designed which is secure, confidential and easy to administer, yet allows the storage of complex or detailed information 5.2 The record keeping system is designed to allow easy tracking of persons' progress towards the attainment of qualifications, units of competency or of learning outcomes 5.3 The record keeping system is verified to allow for appropriate certification requirements, where relevant 5.4 Adherence to legislative requirements and procedures are established which enable the record keeping system to be updated with ease when required 5.5 The record keeping system is verified for consistency with accepted enterprise / industry procedures for record keeping and
6. Establish procedures for the review of assessment	6.1 Review procedures are designed consultation with stakeholders and verified to allow for fair and consistent responses to grievances 6.2 Review procedures are designed to ensure that relevant legislative and regulatory requirements are met
7. Select and provide for training and support of assessors	7.1 Selection criteria for assessors is established in consultation with appropriate personnel 7.2 Appropriate training strategies or programs for assessors to acquire or update competencies are identified, modified or developed 7.3 Training programs selected or developed for assessors are verified to meet the Assessment and Workplace Training Competency Standards and other required competencies

UNIT	BSZ503A	Design and establish the assessment system
------	----------------	---

	8. Establish quality assurance procedures	8.1 A quality assurance team or committee is established in consultation with system stakeholders 8.2 Quality assurance procedures, including verification processes are developed in consultation with system stakeholders 8.3 The verification processes involve a representative sample of assessment activities and make effective use of resources 8.4 The quality assurance procedures are trialed for fairness, efficiency and effectiveness 8.5 The quality assurance procedures are documented and distributed to assessors/trainers and other appropriate personnel 8.6 Procedures are established to determine the level of compliance with the assessment system
--	---	---

RANGE OF VARIABLES

Clients needs may include:

- increased productivity
- increased enterprise profitability
- attainment of specified industry or enterprise competencies
- achievement of community priorities
- achievement of government priorities.

Stakeholders may include:

- industry/professional/trade associations
- trainers/teachers and assessors
- team leaders/managers/employers
- training and assessment coordinators
- participants/employees/learners
- technical experts
- government regulatory bodies
- union/employee representatives
- consultative committees
- relevant industry training advisory bodies
- funding bodies
- State/Territory Training/Recognition Authorities.

Key operational features may include:

- the purpose of the assessment(s)
- competencies and certification required of assessors
- record keeping procedures and policies
- evidence requirements and procedures
- selected/appropriate assessment methods
- characteristics of persons being assessed
- any allowable adjustments to the assessment methods to meet characteristics of persons being assessed
- access and equity considerations
- the appeal mechanisms and procedures
- the review and evaluation process
- the link with qualifications/awards, employee classification, remuneration and progression
- relevant commonwealth/state or territory legislative and regulatory requirements
- arrangements for the issuing of qualifications or statements of attainment and for recognising and recording current competencies
- partnership arrangements
- location of assessment
- quality assurance procedures
- allocation of costs/fees (if applicable)
- marketing/promotion of system.

UNIT

BSZ503A

Design and establish the assessment system

Purpose of assessment may include:

- diagnosing performance
- classifying an employee
- confirming an employees' competency for the purpose of career advancement
- awarding a qualification or statement of attainment
- confirming progress in learning
- recognition of current competency/recognition of prior learning.

Operational constraints may include:

- time available
- relative cost
- availability of stakeholders and other personnel
- budgetary constraints
- geographical and resource constraints.

Quality assurance procedures may include may include:

- conduct of regular internal and external reviews (persons being assessed/trained, peer, self and supervisor)
- professional development of participants
- sampling and evaluation of implementation of competencies
- assessment of the assessors'/trainers' competencies
- modifications of the competency system based on evaluation and reviews
- promotion of regular networking amongst developers, assessors/trainers and peer review amongst persons responsible for planning, conducting and reviewing assessments/training within the system.

Sources of information may include:

- industry/enterprise competency standards,
- training packages
- curriculum and other training program information
- licensing requirements
- job descriptions
- discussions with client group
- observations of competent workers
- enterprise skills audit reports
- industry skills audit reports
- standard operating procedures
- benchmarking reports
- industry publications or reports
- government reports
- market needs analysis reports.

Policy may include:

- purposes of assessment
- human resource management issues
- what and who is to be assessed
- timing of assessments
- links with other human resources functions
- appeal/review mechanisms
- criteria for making decisions of competent, or not yet competent
- number of assessors
- allowable adjustments to the assessment procedure
- record keeping requirements
- recognition of prior learning/recognition of current competencies
- development costs and resources
- evaluation.

UNIT

BSZ503A

Design and establish the assessment system

Characteristics of persons being assessed may include:

- language, literacy and numeracy needs
- cultural, educational and general knowledge background
- gender
- physical ability
- level of confidence
- age
- previous experience with the topic
- experience in assessment.

Record system may include:

- paper-based system, such as forms on checklists
- computer-based system using magnetic or optical storage
- combination of both paper and computer-based system.

NB- statutory and government regulations for maintaining records may vary

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment requires evidence of the following products to be collected:

- Assessment policy
- Description of the client and stakeholders
- Description of assessment system boundaries
- Report on sources of information for determining assessment system
- Report on the design, development, maintenance and security of the record keeping system
- Summary of available financial, physical and human resources
- Documented review procedures of assessment activities
- Documented assessor training and professional development strategies
- Documentation of quality assurance mechanisms.

Assessment requires evidence of the following processes to be provided:

- Why particular assessment system features were incorporated
- How the record keeping system was designed to meet security and access requirements
- How fairness, equity and accessibility of the system were verified
- Why and how the selection criteria for assessors was chosen
- How the review procedures were verified
- How the quality assurance procedures were established, verified and implemented
- How the currency of records and ease of retrieval are ensured
- Why procedures for promoting and communicating the assessment system were chosen/developed.

Interdependent assessment of units

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills

- Language and literacy skills to comprehend sources of information and to prepare required documentation in a clear and comprehensible format
- Knowledge of relevant industry/enterprise competency or performance standards
- Knowledge of the Assessment and Workplace Training Competency Standards and Assessment Guidelines
- Knowledge of record keeping systems particularly related to assessment
- Knowledge of quality assurance methodology
- Knowledge of compliance with requirements for copyright and other regulatory requirements
- Knowledge of client work systems and equipment
- Identification and correct use of equipment, processes and procedures
- Knowledge of review/evaluation methodology, particularly as it relates to assessment.

UNIT	BSZ503A	Design and establish the assessment system
------	----------------	---

Resource implications

Access to relevant clients, stakeholders and sources of information required to address required skills and knowledge and to design and establish an assessment system.

Consistency in performance

Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

Assessment may occur on the job or in a simulated workplace.

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT

BSZ504A

Manage the training and assessment system

DESCRIPTOR

This unit covers the requirements for persons responsible for managing a training and assessment system. The unit applies equally to those operating in assessment only or training and assessment contexts.

ELEMENT	PERFORMANCE CRITERIA
1. Communicate the system	1.1 System features and procedures are documented and circulated to appropriate personnel 1.2 Procedures are established for keeping appropriate personnel regularly informed about the key features of the training and assessment system 1.3 Recognised products and services are accurately presented to prospective clients 1.4 The contribution of training and assessment to organisational goals is reported
2. Support trainers and/or assessors	2.1 Checks are made to ensure assessors and/or trainers meet the relevant competency standards and system requirements 2.2 The training needs of trainers and/or assessors arising from their roles are identified 2.3 Procedures are developed for trainers and/or assessors to update competency, and to review and reflect on their work 2.4 Trainers and/or assessors are provided with accurate advice and ongoing support in their roles 2.5 Procedures to facilitate networking amongst trainers and assessors are established
3. Manage the record keeping system	3.1 Records are maintained for currency and adherence to government regulatory and organisational requirements 3.2 The record keeping system is maintained to ensure confidentiality and security of information 3.3 The record keeping system is reviewed and updated to meet changing technology and system requirements
4. Maintain quality assurance procedures	4.1 The quality assurance procedures are monitored against requirements, non-conformities are noted and appropriate action is taken 4.2 Internal audits of the training and assessment system are undertaken, non-conformities are noted and corrective action implemented 4.3 Information from the quality assurance process is used to: <ul style="list-style-type: none"> ◦ enable appropriate planning, resourcing and recording arrangements ◦ identify any special requirements of persons being trained or assessed ◦ assess the training and development for trainers and assessors 4.4 Validity, reliability, fairness and accuracy of the implementation of the training and assessment system is checked and reports developed
5. Maintain records for audits	5.1 Verification records are accurate and the frequency and purpose of audits are identified 5.2 Accurate reports on audits and advisory activities are made available 5.3 Reports describe accurately whether the organisation meets the required criteria 5.4 Concerns regarding the design and implementation of training and/or assessment and the interpretation of standards are clearly and promptly reported to the auditing body 5.5 Clear recommendations for improvements to training and assessment practices, training and assessment system and infrastructure requirements are developed 5.6 Identified good practice is reported clearly and accurately

UNIT

BSZ504A

Manage the training and assessment system

RANGE OF VARIABLES**Appropriate personnel may include:**

- trainers/teachers and assessors
- team leaders/supervisors/employers
- training and assessment coordinators
- participants/employees/learners
- technical experts
- government regulatory bodies
- union/employee representatives
- consultative committees
- relevant industry training advisory bodies
- users of training information such as training providers, employers, human resource departments
- State/Territory Training/Recognition Authorities.

Purposes of assessment may include:

- diagnosing performance
- classifying an employee
- confirming an employee's competency for the purpose of career advancement/job level
- awarding a qualification or statement of attainment
- confirming progress in learning
- recognition of current competency/recognition of prior learning.

Purpose of training may include:

- productivity improvement
- professional development requirements
- competency acquisition
- induction of new employees
- refresher training for competency maintenance
- legislative or government regulatory requirements
- access and equity considerations.

System may be developed by:

- the industry
- the enterprise
- the training organisation
- a combination of the above.

Policies may include:

- purposes of training and assessment
- human resource management issues
- what and who is to be trained and assessed
- timing of training and assessments
- links with human resource functions
- evidence types
- assessment methods
- record keeping requirements
- recognition of current competencies/recognition of prior learning
- development costs and resources
- evaluation.

Operational constraints may include:

- time available for the development of competencies
- relative cost of information gathering strategies
- availability of stakeholders for review and feedback.

UNIT

BSZ504A

Manage the training and assessment system

Quality assurance procedures may include:

- conduct of regular internal and external reviews (person(s) being assessed/trained, peer, self and supervisor)
- professional development of participants
- sampling and evaluation of implementation of competencies
- assessment of the assessors'/trainers' competencies
- modifications of the competency system based on evaluation and reviews
- promotion of regular networking amongst developers, assessors/trainers and peer review amongst persons responsible for planning, conducting and reviewing assessments/training within the system
- **The auditing body may be State/Territory Training/Recognition Authority.**

Sources of information may include:

- industry/enterprise competency standards, including international information
- training packages
- curriculum and other training program information
- licensing requirements
- government legislation, policies and practices
- job descriptions
- observations of competent workers
- enterprise skills audit reports
- industry skills audit reports
- workplace conditions, policies and standard operating procedures
- benchmarking reports
- industry publications or reports
- market needs analysis reports
- quality assurance procedures.

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment requires evidence of the following products to be collected:

- Records which are current and meet legislative, industry/enterprise requirements
- A record keeping system which maintains confidentiality, is secure and effectively uses appropriate technology
- Documentation used to inform all appropriate personnel about the training and assessment system
- Information on procedures for trainers and assessors to update personal competency and review and reflect on assessment and training issues and personal performance
- Documentation on the implementation of quality assurance procedures, including
 - moderation and monitoring of training and assessment decisions
 - an appeal procedure for assessment decisions
 - conduct of regular internal or external reviews and evaluation
 - sampling and evaluation of judgements of evidence and assessment decisions and training effectiveness to check their fairness and accuracy
 - modifications of the system based on evaluations and reviews
 - referral of any recommended changes/modifications to the system.

Assessment requires evidence of the following processes to be provided:

- How opportunities are provided for trainers and assessors to practice and maintain current competency
- How the security and confidentiality of records are maintained
- How support is given to the implementation of quality assurance procedures
- How networking is achieved amongst trainers and assessors
- How the quality assurance procedures are implemented
- Why particular procedures were chosen for internal/external review of the training and assessment system
- Why any modifications are recommended to the training and assessment system on the basis of evaluations and review
- How the record keeping system is maintained including how it meets legislative and organisational requirements
- Why professional development strategies were chosen for trainers and assessors and how they were circulated and promoted.

UNIT

BSZ504A

Manage the training and assessment system

Interdependent assessment of units

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills

- Language and literacy skills to comprehend sources of information and to prepare required documentation in a clear and comprehensible format
- Knowledge of relevant industry/enterprise competency or performance standards
- Knowledge of the Assessment and Workplace Training Competency Standards and Assessment Guidelines
- Knowledge of quality assurance methodology
- Knowledge of compliance with requirements for copyright and other regulatory requirements
- Knowledge and application of audit procedures as they relate to training and assessment systems
- Focus of operation of work systems and equipment
- Identification and correct use of equipment, processes and procedures
- Planning own work including predicting consequences and identifying improvements
- Communication skills appropriate to the culture of the workplace.

Resource implications

Access to a training and assessment system and relevant information and resources on management and review procedures.

Consistency in performance

Competency in this unit needs to be assessed over a period of time, in a range of contexts, and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

Assessment may occur on the job or in a simulated workplace.

KEY COMPETENCIES

Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT

BSZ505A

Evaluate the training and assessment system

DESCRIPTOR

This unit covers the requirements for a person to evaluate an external or internal training and assessment system.

ELEMENT	PERFORMANCE CRITERIA
1. Plan a system evaluation	1.1 The purpose and role of the evaluation is identified and confirmed with client and stakeholders 1.2 The system is defined in terms of location, purpose, and personnel 1.3 The needs of the stakeholders of the system are identified and prioritised 1.4 The necessary resources for the evaluation are identified, obtained or developed 1.5 The evaluation plan is agreed to by stakeholders including: <ul style="list-style-type: none"> ◦ responsibility of appropriate personnel for conducting and participating in evaluations ◦ evaluation criteria ◦ responsibilities for implementation of the evaluation plans ◦ means of protection of participants ◦ agreement for data collection, storage and retrieval ◦ procedures for editing and disseminating reports ◦ agreement of the financing the evaluation 1.6 The evidence required for making decisions of system improvement is established 1.7 Evidence gathering instruments, procedures are sources of information are identified, developed and validated for reliability and validity 1.8 Cost effective methods utilising an appropriate evaluation model are linked to the purpose of the evaluation
2. Conduct the evaluation	2.1 Evidence is collected in accordance with agreed evaluation procedures 2.2 The evidence is interpreted at the individual and aggregate levels and strengths and weaknesses of the system are identified
3. Report on evaluation findings	3.1 The differing communication needs of the stakeholders are identified 3.2 A range of report formats on the evaluation are prepared to meet the differing needs of stakeholders
4. Develop intervention strategies	4.1 Key components of the changes required are identified, constraints determined and resources required for implementation determined 4.2 A review process for monitoring and evaluating both the change and its effect is determined

RANGE OF VARIABLES**Clients needs may include:**

- increased productivity
- increased enterprise profitability
- attainment of specified industry or enterprise competencies
- achievement of community priorities
- achievement of government priorities
- licensing or accreditation requirements.

UNIT

BSZ505A

Evaluate the training and assessment system

Purposes of assessment may include:

- diagnosing performance
- classifying an employee
- confirming an employee's competency for the purpose of career advancement/job level
- awarding a qualification or statement of attainment
- confirming progress in learning
- recognition of current competency/recognition of prior learning.

Purposes of training may include:

- productivity improvement
- professional development requirements
- competency acquisition
- induction of new employees
- refresher training for competency maintenance
- legislative or government regulatory requirements
- access and equity considerations.

System may be developed by:

- the industry
- the enterprise
- the training organisation
- a combination of the above.

Policies may include:

- purposes of training and assessment
- human resource management issues
- what and who is to be trained and assessed
- timing of training and assessments
- links with human resource functions
- evidence types
- assessment methods
- record keeping requirements
- recognition of current competencies/recognition of prior learning
- development costs and resources
- evaluation.

Stakeholders may include:

- industry/professional/trade associations
- trainers/teachers and assessors
- team leaders/supervisors
- managers/employers
- training and assessment coordinators
- participants/employees/learners
- technical experts
- government regulatory bodies
- union/employee representatives
- consultative committees
- relevant industry training advisory bodies
- funding bodies
- **State/Territory Training/Recognition Authorities.**

UNIT

BSZ505A

Evaluate the training and assessment system

Operational constraints may include:

- time, resources and locations available
- cost of evidence gathering strategies
- availability of stakeholders for review and feedback
- government, organisational, industry requirements and procedures.

Evaluation methodology and report may include:*Selection of appropriate evaluation models including:*

- Stake model
- Stufflebeam (CIPP) model
- Scriven model
- Ethnographic model
- Action research model
- The Portrayal approach.

Types of evidence to be collected may include:

- affective (eg satisfaction with the program)
- cognitive (eg. knowledge or skill gain)
- performance or behaviour (eg. quality of work, productivity).

Resources may include:

- human personnel required to carry out the evaluation
- physical resources (equipment, materials/documents, facilities, assessment tools)
- financial amounts
- in-kind services
- space, location.

Report Formats may include:

- written reports
- oral presentations
- audio visual reports.

Evidence gathering instruments and procedures may include:

- survey instruments (delphi, questionnaires, diaries, logs, attitude scales, diagnostics)
- interview schedules and records
- observations.

Validating the data gathering process may include:

- detailing what is to be measured
- assessing the capacity of the instrument to collect sufficient, valid, reliable and current information
- detailing how the instrument or procedure is administered, scored and interpreted in the particular evaluation
- presenting both qualitative and quantitative evidence that justifies the use of the particular instrument or procedure
- defending the validity of the use and interpretation of the information provided by the instrument or procedure.

Summarising quantitative information may involve:

- charts
- tables
- reports
- videos
- oral presentations
- development of visual presentations including computer generated visuals and overhead transparencies.

UNIT

BSZ505A

Evaluate the training and assessment system

Sources of information may include:

- industry/enterprise competency standards, including international information
- training packages
- curriculum and other training program information
- licensing requirements
- government legislation, policies and practices
- job descriptions
- observations of competent workers
- enterprise skills audit reports
- industry skills audit reports
- workplace conditions, policies and standard operating procedures
- benchmarking reports
- industry publications or reports
- market needs analysis reports
- quality assurance procedures.

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment requires evidence of the following products to be collected:

- Description of client and stakeholders
- Evaluation plan
- List and review of information relevant to evaluation
- Description of evaluation method selected
- Evidence gathering instruments and procedures
- Evaluation report, including any proposed changes.

Assessment requires evidence of the following processes to be provided:

- How client, stakeholders were identified
- Why the evaluation of the system was proposed
- How the evaluation plan was developed and confirmed with client and stakeholders
- Why particular evaluation model and evidence gathering instruments were selected
- How the evaluation was conducted
- How the evaluation report was drafted and confirmed with client and stakeholders
- How any changes to the system are to be implemented.

Interdependent assessment of units

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills

- Knowledge of program evaluation models
- Skills in applying evaluation models
- Skills in validating evaluation procedures
- Planning own work including predicting consequences and identifying improvements
- Compliance with requirements for copyright and other regulatory requirements
- Language and literacy skills to collect and interpret information relevant with the unit and communicate with client, stakeholders and others.
- Application of cultural understanding in the workplace
- Skills in applying relevant workplace policies and procedures and any related legislation or regulatory requirements.

Resource implications

Access to clients, stakeholders, information and resources needed to address the required skills and knowledge and to conduct an evaluation of a training and assessment system.

Consistency in performance

Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

UNIT	BSZ505A	Evaluate the training and assessment system
------	----------------	--

Context for assessment

Assessment may occur on the job or in a simulated workplace.

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	<u>Use Technology</u>
3	3	3	3	3	3	3

UNIT

BSZ506A

Develop assessment procedures

DESCRIPTOR

This unit covers the requirements for developing an assessment procedure for a target group, including determining evidence requirements and selecting appropriate assessment methods to be used by assessors.

ELEMENT	PERFORMANCE CRITERIA
1. Establish evidence requirements	1.1 The purpose of the assessment and the target group to be assessed is identified and confirmed with stakeholders 1.2 The type of evidence required to infer competency is established and the process of interpreting and recording the evidence is established and documented 1.3 Evidence requirements are specified to assure coverage of the key components of competency 1.4 Evidence requirements are specified to assure: validity, currency, authenticity and sufficiency 1.5 Where additional levels of competence are used, criteria for making judgements for different levels of competency are defined 1.6 Links to existing relevant assessment system(s) are defined, including: recording and reporting requirements, appropriate personnel and requirements for receiving information about the assessment appeal process and quality assurance mechanisms 1.7 Any additional review mechanisms are identified and documented 1.8 The reporting formats for the assessment process and recording of outcomes are designed 1.9 The development, implementation and review costs of the assessment procedure are estimated
2. Identify assessment methods	2.1 The context and location of assessments are described and specified 2.2 The facilities and physical resources needed to conduct assessments are identified and documented 2.3 A range of assessment methods for gathering evidence in relation to the competencies to be assessed are evaluated for: type and amount of evidence required, validity, reliability, fairness, cost effectiveness, administration ease and the characteristics of the target group 2.4 The number of assessors and any required supports to implement the assessment process is determined 2.5 The instructions for the persons being assessed are drafted 2.6 The assessment method(s) to be used are selected and allowable adjustments are proposed to cater for characteristics of persons being assessed 2.7 The required evidence of competency to be demonstrated or supplied by the persons being assessed 2.8 The instructions for interpreting the evidence and making a decision of competence are documented 2.9 Descriptions of likely performances are established and verified with appropriate personnel 2.10 Other related competencies are identified for inferring full or partial competence from the evidence gathered 2.11 The rules for verifying assessment decisions are determined 2.12 Any limits, variations or restrictions on the assessment tools are specified

UNIT	BSZ506A Develop assessment procedures	
	3. Identify potential available assessment tools	3.1 Available assessment tools appropriate to evidence required to infer competency are identified and evaluated in relation to applicability for the: characteristics of persons being assessed, assessment contexts and assessors 3.2 A panel of specialists is convened to critique tools for: reliability, validity, fairness, relevance to the workplace context, content accuracy, ease of use, cost effectiveness, appropriateness of language and avoidance of bias 3.3 Adjustments to the tools and methods are made to ensure applicability to the context, competencies and characteristics of persons being assessed
	4. Trial the assessment methods and tools	4.1 The tools and assessment method are trialed with a sample from the target group 4.2 Allowable adjustments to the assessment method and tools are drafted 4.3 Assessors (if required) are trained to administer the assessment tools in a consistent manner 4.4 The assessments tools and methods are administered to the target sample 4.5 Responses from the target sample and the assessors are compiled and analysed 4.6 The appropriateness of the assessment method and the ease of use and language level of the assessment tools are determined 4.7 Improvements and changes to the assessment tools are made where necessary
	5. Document assessment procedures	5.1 Any influences that may affect (bias) the assessment decision are identified and documented 5.2 Any allowable adjustments to the assessment methods and tools to meet the characteristics of persons being assessed are documented 5.3 The criteria for making decisions of competent or not yet competent are reviewed, and if necessary, adjusted 5.4 The assessment procedure(s) and administration instructions are documented

RANGE OF VARIABLES

Stakeholders may include:

- industry/professional/trade associations
- trainers/teachers and assessors
- team leaders/managers/employers
- training and assessment coordinators
- participants/employees/learners
- technical/subjects experts including language, literacy and numeracy specialists
- government regulatory bodies
- union/employee representatives
- consultative committees
- relevant industry training advisory bodies
- funding bodies
- State/Territory Training/Recognition Authorities.

Target group may include:

- an enterprise
- a department/division
- a job role/occupation
- an industry sector
- a professional association
- a trade
- community sector
- government organisation.

UNIT

BSZ506A

Develop assessment procedures

Purpose of assessment:

- diagnosing performance;
- classifying an employee
- confirming an employee's competency for the purpose of career advancement/job level;
- awarding a qualification;
- providing a statement of attainment;
- confirming progress in competency acquisition/learning
- recognising prior learning or current competencies.

Evidence for assessment:

Type of evidence may include:

- indirect
- direct
- supplementary
- combination of the above.

Evidence might be interpreted using a range of reference frames. These include:

- criterion referenced frames
- linkages of evidence to competency standards
- prediction of workplace performance.

Characteristics of persons being assessed:

- language, literacy and numeracy levels
- cultural and language background
- educational background or general knowledge
- physical ability
- work organisation or roster
- age
- gender
- experience in assessment
- level of confidence, nervousness or anxiety
- **previous experience with topic.**

Appropriateness of evidence types may include:

- cost effectiveness
- practicability
- flexibility
- communication skills of person(s) being assessed
- assessment experience and characteristics of persons being assessed.

Assessment methods may include combinations of:

- direct observation of performance or product
- practical tasks
- projects written/oral/computer-based questioning
- simulation exercise(s)
- consideration of third party reports and self and peer assessment
- authenticated prior achievements.

Allowable adjustment to assessment methods/tools may include:

- provision of support services (eg Auslan interpreter, reader, interpreter, attendant carer, scribe)
- use of special equipment (eg word processor or lifting gear)
- adaptive technology
- shorter assessment to allow for fatigue or medication
- use of large print version of any papers.

UNIT

BSZ506A

Develop assessment procedures

Specialist panel may include:

- technical specialists
- language, literacy and numeracy specialists
- assessment specialists
- management and enterprise representatives
- industry representatives
- union/employee representatives
- potential and past candidates.

Operational constraints may include:

- time available for assessment
- relative cost of evidence gathering strategies
- availability of assessors
- availability of experts in the technical area to be assessed
- availability of persons being assessed because of matters such as work organisation
- geographical location of persons being assessed.

Record systems may include:

- paper based systems
- computer-based systems using magnetic or optical storage
- combination of both paper and computer based systems.

NB: statutory and legislative requirements for maintaining records may vary in States/territories

Assessment system:

The assessment system may be developed (and endorsed) by:

- the industry
- the enterprise
- the training organisation
- a combination of the above.

The assessment system should specify the following:

- the purpose of assessment
- competencies required of assessors
- record keeping procedures and policies
- any allowable adjustments to the assessment method
- the appeal/review mechanisms and procedures
- the review and evaluation of the assessment process
- the linkages between assessment and training qualifications/awards, employee classification, remuneration, progression
- relevant policies
- quality assurance mechanisms
- apportionment of costs/fees (if applicable)
- marketing/promotion of assessment
- verification arrangements
- auspicing arrangements, if applicable
- partnership arrangements, if applicable.

UNIT

BSZ506A

Develop assessment procedures

Assessment procedure should include:

- recording procedure
- appeal/review mechanism
- assessment methods to be used
- number of assessors
- assessment tools
- evidence required
- location of assessment
- timing of assessment
- assessment group size
- allowable adjustments to assessment methods and tools.

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment requires evidence of the following products to be collected:

- A description of the stakeholders, target group, the purpose of assessment
- A description of the competencies to be assessed, and evidence required to infer competency
- Documentation on steps taken to develop the assessment procedures, including the trialing of assessment methods and tools in accordance with performance criteria
- Documented assessment procedures.

Assessment requires evidence of the following processes to be provided:

- How the target group and stakeholders were determined and consulted
- Why particular assessment methods and tools were selected
- How assessment methods and tools were trialed
- How other persons were involved in the development of the assessment procedure including:
 - the panels of specialists that reviewed the materials - their roles and responsibilities
 - the characteristics of the candidates that piloted the tasks and provided feedback in detail
 - the characteristics of the trial sample.

Interdependent assessment of units

This unit of competency must be assessed in conjunction with unit BSZ507A.

Required knowledge and skills:

- Knowledge of relevant industry/enterprise training packages, competency or other performance standards
- Knowledge of assessment methods, their purposes and uses
- Skills in applying assessment methods and tools to elicit evidence, in a relevant context, from target group
- Knowledge in the development and modification of assessment tools for a defined group of competencies, assessment contexts and to meet the characteristics of persons being assessed
- Language and literacy skills to comprehend sources of information and to prepare required documentation
- Knowledge of compliance requirements for copyright and other regulatory requirements
- Identification and correct use of equipment, processes and procedures
- Planning own work including predicting consequences and identifying improvements.

Resource implications

Access to target group, stakeholders, competencies or other standards of performance, information and resources needed to address required knowledge and skills and for the development assessment procedures.

Consistency in performance

Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

Assessment may occur on the job or in a simulated workplace.

UNIT	BSZ506A	Develop assessment procedures
------	----------------	--------------------------------------

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT

BSZ507A

Develop assessment tools

DESCRIPTOR

This assessment unit covers the requirements for selecting, developing, validating and documenting new assessment tools to be used by assessors.

ELEMENT	PERFORMANCE CRITERIA
1. Identify the context for the assessment tool	1.1 The purpose of the assessment, the target group and the competency or other standard of performance to be assessed is identified 1.2 Evidence required to infer competency is identified 1.3 Assessment methods are evaluated to establish requirements of assessment tools, particularly: <ul style="list-style-type: none"> ◦ resources and requirements for the assessment tools ◦ assessment location and context ◦ administration ease ◦ the characteristics of the target group 1.4 Requirements of the assessment system in relation to the assessment tools are identified: <ul style="list-style-type: none"> ◦ storage and security of documentation ◦ appropriate personnel and differing needs for receiving information about the assessment tools ◦ evaluation and review process ◦ quality assurance mechanisms 1.5 Development, implementation and review plans costs of the assessment tools development are estimated 1.6 A plan for the development of the assessment tools is prepared
2. Draft assessment tools in accordance with plan	2.1 Assessment tools are designed to assess the relevant competencies using appropriate: <ul style="list-style-type: none"> ◦ format ◦ language, numeracy requirements ◦ visual representation and where appropriate sound ◦ question and activity types ◦ media ◦ sequence of activities ◦ choice in activities 2.2 Assessment tools require the person being assessed to demonstrate the components of competency 2.3 The assessment tools are checked for the following characteristics: <ul style="list-style-type: none"> ◦ reliability ◦ validity ◦ fairness ◦ relevance to the workplace context ◦ content accuracy ◦ ease of use ◦ cost effectiveness ◦ avoidance of bias ◦ testing the required scope of the competencies 2.4 Adjustments to the tools and procedures are made as required

UNIT	BSZ507A Develop assessment tools	
3. Develop instructions for assessment tools	3.1	The instructions for the persons to be assessed are drafted
	3.2	The instructions for administering each assessment tool are drafted to include the resources needed to conduct the assessment and the context for the use of the tools
	3.3	Evidence of competency to be demonstrated is documented and incorporated in the assessment tools
	3.4	Allowable adjustments identified in the assessment procedures are noted and included in the instructions
	3.5	The rules for verifying assessment decisions are identified and any limits, variations or restrictions on the assessment tools are specified
4. Pilot the assessment tools	4.1	The tools are piloted with a small sample selected across the range of the target group
	4.1	Feed back from sample target group individuals and others involved in administering the pilot is used to establish appropriate amendments to the assessment tools, particularly in relation to: <ul style="list-style-type: none"> ◦ ease of use ◦ language and other literacy/numeracy requirements in terms of the relevant competencies ◦ appropriateness for the assessment context and competencies ◦ costs/time effectiveness for candidates and assessors
	4.2	Improvements and changes to the assessment tools are made where necessary
5. Validate assessment tools	5.1	An adequate sample of the target group to be assessed is selected
	5.2	Assessors are trained (if required), to administer the assessment tools in a consistent manner
	5.3	The assessment tools are administered to the target sample responses compiled and analysed assessment tools are modified according to the findings
	5.4	Any influences that may affect (bias) the assessment decision are identified and documented
6. Finalise assessment tools	6.1	Validated and appropriately amended tools are incorporated in assessment procedure(s)
	6.2	Documentation in paper and/or electronic form is filed in appropriate secure, accessible locations

RANGE OF VARIABLES

Target group may include:

- an enterprise
- a department/division
- a job role/occupation
- an industry sector
- a professional association
- a trade
- a community organisation
- a government organisation.

Purpose of assessment may include:

- diagnosing performance
- classifying an employee
- confirming an employee's competency for the purpose of career advancement/job level
- awarding a qualification
- providing a statement of attainment
- confirming progress in competency acquisition/learning
- recognising prior learning or current competencies.

UNIT

BSZ507A

Develop assessment tools

Evidence for assessment may include:

Type of evidence may include:

- direct
- indirect
- supplementary
- combination of the above.

Evidence might be interpreted using a range of reference frames including:

- criterion referenced frames
- linkages of evidence to competency standards
- prediction of workplace performance.

Appropriateness of evidence types includes:

- cost effectiveness
- practicability
- communication skills of person(s) being assessed
- assessment experience and special needs of person(s) being assessed.

Components of competency include:

- task skills
- task management skills
- contingency management skills
- job/role environment skills
- transfer and application of skills and knowledge to new contexts.

Assessment system may include:

The assessment system may be developed (and endorsed) by:

- the industry
- the enterprise
- the Registered Training Organisation
- a combination of the above.

The assessment system should specify the following:

- the purpose of assessment
- competencies required of assessors
- record keeping procedures and policies
- any allowable adjustments to the assessment method which are to be made for the person being assessed who have special needs
- the appeal/review mechanisms and procedures
- the review and evaluation of the assessment process
- the linkages between assessment and training qualifications/awards, employee classification, remuneration, progression
- relevant policies
- quality assurance mechanisms
- apportionment of costs/fees (if applicable)
- marketing/promotion of assessment
- verification arrangements
- auspicating arrangements, if applicable
- partnership arrangements, if applicable.

Allowable adjustment to assessment tools include:

- provision of support services (eg Auslan interpreter, reader, interpreter, attendant carer, scribe)
- use of special equipment (eg word processor or lifting gear)
- adaptive technology
- shorter assessment to allow for fatigue or medication
- use of large print version of any papers.

UNIT

BSZ507A

Develop assessment tools

Assessment methods may include:

- direct observation of performance or product
- practical tasks
- projects
- written/oral/computer-based questioning
- simulation exercise(s)
- consideration of third party reports and self and peer assessment
- authenticated prior achievements.

Operational constraints may include:

- time available for assessment
- relative cost of evidence gathering strategies
- availability of assessors
- availability of experts in the vocational area to be assessed
- availability of person(s) being assessed because of matters such as rosters, shift work
- geographical location of person(s) being assessed

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment requires evidence of the following products to be collected:

- A plan for the development of the assessment tool(s)
- Assessment tools and related instructions in final format. This should be a useable tool together with a set of instructions for assessors and the person being assessed
- A report on the piloting of the assessment tools including any changes proposed and made.

Assessment requires evidence of the following processes to be provided:

- How the target group was identified
- How the plan for the development of the assessment tools was prepared
- How the assessment tools meet the components of competency for the target group
- How the assessment tools were validated.
- How the finalised assessment tools were incorporated in assessment procedure(s)

Interdependent assessment of units

This unit of competency must be assessed in conjunction with BSZ506A.

Required knowledge and skills

- Knowledge of relevant training packages, competency or other standards of performance
- Knowledge of different methodology for developing assessment tools
- Skills in applying evaluation methodology particularly in relation to trialing assessment tools
- Compliance with requirements for copyright and other regulatory requirements
- Language and literacy skills to collect and interpret irrelevant information relevant and communicate with stakeholders and appropriate personnel.
- Skills in planning own work including predicting consequences and identifying improvements
- Skills in applying relevant workplace policies and procedures and any related legislation or regulatory requirements
- Communication skills appropriate to the culture of the workplace.

Resource implications

Access to a target group, information and resources to meet the required skills and knowledge to development of assessment tools.

Consistency in performance

Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

Assessment may occur on the job or in a simulated workplace.

UNIT	BSZ507A	Develop assessment tools
------	----------------	---------------------------------

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT	BSZ508A	Design training courses
-------------	----------------	--------------------------------

DESCRIPTOR

This unit covers the requirements and responsibilities for designing training courses as part of a training system to meet client identified outcomes and where appropriate, receive formal recognition

ELEMENT	PERFORMANCE CRITERIA
1. Determine the need for a course	1.1 Stakeholders are identified and consulted to establish training aims and requirements 1.2 Course proposal is outlined in terms of stakeholders aims 1.3 Relevant endorsed training packages and curriculum are sourced and assessed for relevance to course proposal 1.4 Any licensing/regulatory or government policies relevant to the course proposal are identified 1.5 Potential employment markets and career opportunities for training participants are recorded and documented 1.6 Results of monitoring activities for related courses are sourced and analysed, where appropriate
2. Identify the learner profile	2.1 Potential learners are identified 2.2 Profiles of learners on entry to the course are developed and learner profiles are examined to determine language and literacy requirements
3. Develop course structure	3.1 Core and elective units/modules are identified 3.2 The relationship between units of competence/modules and course outcomes is documented 3.3 Entry and exit points are identified and documented 3.4 Prerequisites for the course and for specific units/modules within the course are identified and documented
4. Determine the training and assessment requirements	4.1 The professional development and competency requirements of trainers and assessors are identified in consultation with appropriate personnel 4.2 The trainer and assessor requirements are checked for consistency with industry/training package assessment guidelines, where appropriate 4.3 Essential learning resources, materials, facilities, equipment and human resources are identified
5. Define the training content	5.1 The competencies to be acquired by learners are clearly specified 5.2 Entry level competencies are identified and documented 5.3 Requirements for on the job training or assessment are identified and documented 5.4 Appropriate evidence and assessment methods are identified and documented
6. Develop course monitoring arrangements	6.1 Mechanisms for ongoing course monitoring are negotiated, agreed and documented in consultation with appropriate personnel 6.2 Arrangements to enable course outcomes to be evaluated against relevant performance indicators including industry/enterprise competency standards and learner needs are defined and documented
7. Identify career/educational pathways	7.1 Course entry and exit points are linked to occupational and educational opportunities 7.2 Articulation points with higher or related qualifications are identified, negotiated with course owners and documented

UNIT

BSZ508A

Design training courses

RANGE OF VARIABLES**Stakeholders and relevant parties may include**

- professional associations
- employer associations
- union/employee associations
- secondary, TAFE/VET and higher education sector representatives
- potential learners
- trainers/teachers
- regulatory authorities
- partner organisations
- enterprise(s)/organisation(s)
- industry training advisory bodies
- industry sector
- government bodies
- community sector.

Licensing, regulatory and government policies may include

- qualifications framework and regulations for issuing statements of attainment, qualifications
- relevant equal employment opportunity and anti-discrimination legislation, regulations and policies
- relevant licensing or accreditation arrangements
- relevant policies or agreement(s) on any of the following:
 - purposes of training and assessment
 - human resource management issues
 - what and who is to be trained/ assessed
 - timing of training/ assessments
 - links with other human resources functions
 - appeal/review mechanisms
 - criteria for making decisions of competent, or not yet competent
 - number of assessors
 - allowable adjustments to the assessment procedure
 - record keeping requirements
 - recognition of prior learning/recognition of current competencies
 - development costs and resources
 - evaluation
 - licensing.

A training course proposal may include

- stakeholder(s) aims and objectives
- course outcomes
- identified learners
- career and educational pathways
- scope and need for course.

A training course may include:

- suite of training programs (or modules)

Courses may be designed and documented (curriculum) to:-

- meet a whole or part qualification in a training package
- be submitted for formal recognition
- meet industry/enterprise competency standards
- meet stakeholder aims and objectives.

UNIT

BSZ508A

Design training courses

Learner profiles might include:

- generic or technical competencies of potential clients
- relevant prior learning (formal and informal) and employment
- language, literacy and numeracy skills.

Course outcomes may include:

- qualifications
- units of competence
- learning outcomes (module/program outcomes)
- satisfaction of requirements for
- licensing
- memberships of professional associations
- further education opportunities
- employment.

Course monitoring arrangements may include:

- panel of external evaluators
- feedback from learners - during and after course delivery
- survey responses from industry/enterprises about the course outcomes
- moderation mechanisms of assessment decisions
- conduct of regular internal and external reviews
- sampling and evaluation of competencies
- networking of trainers and assessors involved in course implementation.

Appropriate personnel may include:

- support personnel (administration)
- technical experts (eg. language and literacy specialists)
- supervisors/managers
- assessment/training personnel
- other training organisations (partners)
- existing and former learners.

Course requirements*entry requirements may include*

- pre requisite competencies
- access to the workplace.

training requirements may include

- job placement
- field placement
- access to specialist equipment and facilities
- minimum competencies to be held by trainers.

assessment requirements may include:

- minimum competencies to be held by assessors
- assessment conditions including location, timing and access to resources.

UNIT

BSZ508A

Design training courses

Sources of information / documents may include:

- performance standards which may include:
 - industry/enterprise competency standards
 - licensing requirements
 - job descriptions
 - standard operating procedures.
- conditions of service, legislation and industrial agreements including:
 - workplace agreements and awards
 - occupational health & safety procedures.
- applicable State, Territory, Commonwealth legislation and related regulations concerning:
 - occupational health & safety in terms of duties of employers, employees, suppliers and contractors
 - workplace relations
 - workers compensation
 - equal opportunity, anti-discrimination and affirmative action.

EVIDENCE GUIDE**Critical aspects of evidence**

Assessment requires evidence of the following products to be collected:

- Documentation on the identification and confirmation stakeholder training aims and requirements
- Course proposal
- Course documentation
- Documentation on course monitoring mechanisms
- Description of career pathways, including qualification entry and exit points.

Assessment requires evidence of the following processes to be provided:

- How stakeholder needs were identified
- How the learner profile was researched
- How assessment and training requirements were researched
- How the course monitoring arrangements were developed.

Interdependent assessment of units

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills

- Knowledge of mechanisms to implement relevant access and equity principles
- Knowledge of relevant training packages, competency and other performance standards to course proposal
- Knowledge of accreditation and any licensing or regulatory requirements
- Knowledge of course monitoring mechanisms
- Compliance with requirements for copyright and other regulatory requirements
- Language and literacy skills to collect and interpret irrelevant information relevant and communicate with stakeholders and appropriate personnel.
- Skills in planning own work including predicting consequences and identifying improvements
- Communication skills appropriate to the culture of the workplace
- Skills in applying OHS and other workplace policies and procedures and any related legislation or regulatory requirements

Resource implications

Access to stakeholders, information and resources to meet the required skills and knowledge and to develop course proposal, course documentation and course monitoring mechanisms.

Consistency in performance

Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

Assessment may occur on the job or in a simulated workplace.

UNIT	BSZ508A	Design training courses
------	----------------	--------------------------------

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	3

UNIT

CUFIMA01A Produce and manipulate digital images

UNIT DESCRIPTOR

This unit describes the skills and knowledge required to produce and manipulate digital images for a multimedia production within the cultural industries.

Element	Performance criteria
1 Assess digital camera qualities	1.1 Assess camera software compatibility with hardware systems and select appropriate software for the production 1.2 Match pixel resolution of the camera to the required quality and resolution of outcome 1.3 Check the RAM capacity of the camera to see that it is appropriate to the number of images required to be captured 1.4 Assess shutter speed, focal lengths and camera feature modes as suitable to the quality of and use of photographic image required 1.5 Handle and store lithium batteries in accordance with occupational health and safety requirements
2 Photograph and upload a digital image	2.1 Consider focus and exposure in operation of the digital camera to ensure capture of image meets production requirements 2.2 Ensure correct use of digital image software including entering and exiting the selected software 2.3 Save and retrieve digital photographs using designated file formats 2.4 Load and operate the digital camera in accordance with manufacturer's specifications and appropriate to the quality of image to be photographed 2.5 Upload the IBM-PC or Macintosh card interface/disk onto the relevant computer and save the image on hard disk 2.6 Create and store photographic image files of the computer in accordance with software procedures 2.7 Enhance, crop and alter photographic images electronically to deliver the required image 2.8 Check photographic images for fitness of purpose to comply with specifications 2.9 Assess photographic images for the relevant delivery mode (print, CD-ROM, visual appeal and effectiveness) and deliver appropriately
3 Incorporate digital photography into a multimedia sequence	3.1 Create graphics that incorporate the principles of design using the designate software 3.2 Edit, enhance, amend and save digital images using the designated software 3.3 Combine digital images into a designated multimedia sequence 3.4 Integrate digital images into a designated multimedia sequence 3.5 Evaluate the outcome for visual impact, effectiveness and fitness for purpose

UNIT

CUFIMA01A Produce and manipulate digital images

RANGE OF VARIABLES

Variable

Scope

Multimedia productions may include or be included in:

- aspects or sections of film/video production:
 - feature
 - documentary
 - short film and/or video
 - animations
 - commercials
 - live or pre-recorder performances
 - music video
 - television production of any type (eg music, drama, comedy, variety, sport)
 - live or pre-recorded television production
- educational product
- game
- promotional product
- Information product
- training product
- e-commerce
- a range of others

Equipment used:

- appropriate hardware
- software and communication packages
- LANs
- organisation's backup systems

Multimedia components:

- 2D Graphics
- 3D Graphics
- videos
- sound
- text animation
- scanned images

Industry standard software may include:

- a wide range of programs, some current examples of which may be:
 - Photoshop
 - Pagemill
 - Frontpage
 - Dreamweaver
 - Flash
 - Director
 - Hyper Studio

NOTE: These programs are constantly being upgraded and replaced, and appropriate up-to-date programs should be selected.

Camera feature modes may include:

- flash
- scrollage
- icon menu
- close-up
- wide angle and telephoto capacity

UNIT

CUFIMA01A Produce and manipulate digital images

EVIDENCE GUIDE

Underpinning skills and knowledge	<p>Assessment must include evidence of essential knowledge of, and skills in:</p> <ul style="list-style-type: none"> • basic principles of photography and visual design • knowledge of selected digital image software • ability to interpret a brief • knowledge of the limiting factors of computer hardware • knowledge of computers and computer operating systems • interpreting simple scripts (texts), specifications and instructions • interpreting and communicating production specifications
Linkages to other units	<p>This unit has linkages to the following units and combined training delivery and/or assessment is recommended:</p> <ul style="list-style-type: none"> • CUFMEM07A Apply principles of visual design/ communication to the development of a multimedia project • CUFMEM10A Design and create a multimedia interface
Critical aspects of evidence	<p>This unit of competence applies to a range of industry sectors. The focus of assessment will depend on the industry sector. Assessment must be customised to meet the needs of the particular sector in which performance is being assessed. Assessment should only address those variable circumstances, listed in the range of variables statements, which apply to the chosen context.</p> <p>The following evidence is critical to the judgement of competence in this unit:</p> <ul style="list-style-type: none"> • ability to assess the capacity to upload and process digital images using industry hardware and software, to deliver a designated quality of image outcome
Method and context of assessment	<p>Assessment may take place on the job, off the job or a combination of both of these. Off the job assessment must be undertaken in a closely simulated workplace environment.</p> <p>Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:</p> <ul style="list-style-type: none"> • practical demonstration (direct observation may need to occur on more than one occasion to establish consistency of performance) • role play • work samples or simulated workplace activities • oral questioning/interview aimed at the evaluating the process used in developing and realising the creative concept • projects/reports/logbooks • third party reports and authenticated prior achievements • portfolios of evidence which demonstrate the processes used in developing and realising the creative concept
Resource requirements	<p>Assessment requires access to a range of resources and equipment currently used by the multimedia industry.</p>

Key competencies**Level**

Collecting, organising and analysing information	2
Communicating ideas and information	2
Planning and organising activities	1
Working with others and in teams	1
Solving problems	1
Using mathematical ideas and techniques	1
Using technology	2

UNIT

CUFIMA04A Create 3D digital animation

UNIT DESCRIPTOR

This unit describes the skills and knowledge required to use digital animation techniques and industry standard software to create 3D digital animation for a range of media applications within the cultural industries.

Element		Performance criteria	
1	Identify animation requirements	1.1	Obtain design brief and storyboard and discuss production requirements with relevant personnel
		1.2	Identify all 3D animation requirements including production and technical specifications and discuss with relevant personnel
		1.3	Identify and soundtrack requirements in discussion with relevant personnel
2	Identify scope of 3D animation software	2.1	Identify the range of industry standard 3D animation software and computer assisted animation techniques
		2.2	Assess software compatibility with production and technical requirements and specifications
		2.3	Select the appropriate software in relation to specified multimedia delivery platform
		2.4	Discuss software with relevant design personnel to ensure selection will meet specified outcomes
3	Produce 3D animation	3.1	Identify and select appropriate computer 3D animation technique to meet creative and technical requirements
		3.2	Construct rigid and non-rigid objects as required by the design brief and storyboard
		3.3	Combine objects into a single animated stream according to creative requirements and technical specifications
		3.4	Create simple and complex animated movements and static or moving backgrounds according to creative and technical requirements
		3.5	Integrate animated objects or characters into static or moving backgrounds, using animation techniques available within software as required, and as appropriate according to the software
		3.6	Apply time stamping techniques to animation frames
		3.7	Incorporate sound where necessary, referring to soundtrack breakdown
		3.8	Save and store 3D animation using appropriate and adequate file formats
4	Evaluate animation	4.1	Present 3D animation sequences to relevant personnel for detailed responses and recommendations
		4.2	Discuss and identify and required design changes that may be needed
		4.3	Incorporate design changes to complete the 3D animations and meet the recommendations
		4.4	Obtain final agreement from relevant personnel for finished 3D animation sequences

UNIT

CUFIMA04A Create 3D digital animation

RANGE OF VARIABLES

Variable

Scope

Relevant details for 3D animations may be found in:

- storyboard
- layout drawings
- director's instructions
- camera sheet
- soundtrack breakdown

Production specifications may include:

- timeline
- deadline
- budget
- resources:
 - hardware
 - software
 - personnel
- purpose
- audience
- storyboard
- script
- computer generated
- manually written
- budgets
- scripts
- production schedules
- operational/project plan
- manufacture schedules
- manufacturer's specifications/instructions
- contracts
- edit decision lists (EDLs)
- fault reports
- list of sequences with relevant shot numbers
- assembly order
- marked up scripts
- marked up transcripts
-

Technical specification may include:

- file format
- file size
- operating system
- hardware specifications including memory size, RAM
- delivery platform
- media form
-

Multimedia productions may include or be included in:

- aspects or sections of film/video production:
 - feature
 - documentary
 - short file and/or video
 - animations
 - commercials
 - live or pre-recorded performances
 - music video
 - television production of any type (music, drama, comedy, variety, sport)
 - live or pre-recorded television productions
- educational product
- game
- promotion product
- information product
- training product
- e-commerce
- a range of others

UNIT

CUFIMA04A Create 3D digital animation

Relevant personnel may include:

- 3D graphic production personnel
- 3D animation production personnel
- project manager
- navigation designers
- video producer
- editing personnel
- sound/music personnel
- director
- producer
- director of photography
- other technical staff
- other specialist staff
- designers
-

Industry standard software may include:

- a wide range of programs, some current examples of which may be:
 - Director
 - Flash
 - Soft Image

NOTE: These programs are constantly being upgraded and replaced and appropriate up-to-date programs should be selected.

Delivery platforms may include:

-
- world wide web
- CD-ROM
- DVD
- Beta-cam
- video
- film

EVIDENCE GUIDE**Underpinning skills and knowledge**

Assessment must include evidence of essential knowledge of, and skills in, the following areas:

- 3D animation and graphic design conventions, techniques/methods and equipment
- appropriate software design to create 3D animation and graphic design
- application of different animation and graphic design methods
- principles and techniques of animation production
- computers and computer operating systems
- the limiting factors of computer hardware
- the strategies to test media sequences and products
- screen principles
- basic editing principles, eg composition, framing, pacing, timing
- collecting and interpreting creative information, scripts and images, specifications and instructions
- visualisation of creative concepts
- understanding the capabilities of other collaborative personnel
- understanding the creative elements of a production
- design and drawing skills
- maintaining design integrity
- effective communication skills
- information sources and management
- copyright laws, regulations and clearance procedures

Linkages to other units

This unit has linkages to the following units and combined training delivery and/or assessment is recommended:

- CUFIMA01A Produce and manipulate digital images
- CUFMEM14A Create, manipulate digital images
- CUFMEM07A Apply principles of visual design/
- communication to the development of a multimedia product

UNIT

CUFIMA04A Create 3D digital animation

Critical aspects of evidence

This unit of competence applies to a range of industry sectors. The focus of assessment will depend on the industry sector. Assessment must be customised to meet the needs of the particular sector in which performance is being assessed. Assessment should only address those variable circumstances, listed in the range of variables statements, which apply to the chosen context.

The following evidence is critical to the judgement of competence in this unit:

- production of multimedia sequences incorporating 3D animation according to job specifications and the listed performance criteria
- finding and using information relevant to the task from a variety of information sources
- the development of creative 3D images which meet practical requirements including type of production and resource constraints, in particular budgetary constraints
- effective verbal and written communication with a range of individuals/organisations
- knowledge and application of a range of 3D animation and graphic production methods and equipment

Method and context of assessment

Assessment may take place on the job, off the job or a combination of both of these. Off the job assessment must be undertaken in a closely simulated workplace environment.

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:

- role play
- case studies
- work samples or simulated workplace activities
- oral questioning/interview aimed at evaluating the processes used in developing and realising the creative concept
- projects/reports/logbooks
- third party reports and authenticated prior achievements
- portfolios and realising the creative concept

Resource requirements

Assessment requires access to a range of resources and equipment currently used by the multimedia industry.

Key competencies**Level**

Collecting, organising and analysing information
 Communicating ideas and information
 Planning and organising activities
 Working with others and in teams
 Solving problems
 Using mathematical ideas and techniques
 Using technology

2
 2
 2
 3
 2
 -
 3

UNIT

CUFIMA05A Create 3D digital models and images

UNIT DESCRIPTOR

This unit describes the skills and knowledge required to create 3D digital models and images for a range of media applications within the cultural industries.

Element	Performance criteria
1 Identify requirements for 3D digital models and images	1.1 Obtain design brief and storyboard and discuss creative requirements with relevant personnel
	1.2 Identify all 3D model and image requirements including production and technical specifications and discuss with relevant personnel
	1.3 Identify any soundtrack requirements in discussion with relevant personnel
2 Identify and select modelling and imaging software	2.1 Identify the range of industry standard 3D modelling and imaging software and computer assisted animation techniques, and examine distinguishing features
	2.2 Examine the creative and technical parameters of the identified range of computer hardware and software, assessing limitations and compatibility with creative, production and technical requirements and specifications
	2.3 Select the appropriate software in relation to specified multimedia delivery platform.
	2.4 Discuss 3D modelling and imaging software with relevant design personnel to ensure selection will meet specified outcomes.
3 Create digital 3D models and images	3.1 Identify and apply appropriate tools and features of the selected program to meet creative and technical requirements
	3.2 Create 3D virtual model space using software commands to enhance model and virtual space
	3.3 Create Boolean operations and Vector based drawings as appropriate to the required 3D model
	3.4 Apply pre-defined textures using texture mapping parameters as required
	3.5 Define, apply and manipulate camera control options and appropriate rendering parameters to achieve the required creative outcome.
	3.6 Use object motion hierarchies to achieve the required motion effect
	3.7 Apply appropriate output and presentation form and save 3D model according to specified file compression technology
	3.8 Use agreed industry practices for file naming and file management and backup procedures
4 Test and evaluate 3D models	4.1 Test 3D model motion and combine with other media to create required multimedia sequence as required
	4.2 Ensure cross platform file transfers, digitised time coding and interface calibration meet requirements of technical and creative specifications
	4.3 Present 3D models and relevant multimedia sequence to relevant personnel for detailed responses and recommendations
	4.4 Discuss and identify and required design changes that may be needed
	4.5 Incorporate design changes to complete the models and meet the recommendations
	4.6 Obtain final agreement from relevant personnel for finished models

UNIT

CUFIMA05A Create 3D digital models and images

RANGE OF VARIABLES

Variable

Scope

Production specifications may include:

- timeline
- deadline
- budget
- resources:
 - hardware
 - software
 - personnel
- purpose
- audience
- storyboard
- script
- file format
- file size
- operating system
- hardware specifications including memory size, RAM
- delivery platform
- media form
- software tools and parameters

Relevant creative and design specifications for models may be found in:

- storyboard
- layout drawings
- director's instructions
- camera sheet
- soundtrack breakdown

Software commands may include:

- colour
- tone
- texture

Texture mapping parameters may include:

- lighting
- shadows

Other media may include:

- digital imaging
- sound
- animation
- video

Documentation may be:

- computer generated
- manually written
- marked up scripts
- marked up transcripts
- list of sequences with relevant shot numbers
- production schedules
- operational/project plan
- manufacturer's specifications/instructions
- edit decision lists (EDLs)
- fault reports
- assembly order

UNIT

CUFIMA05A Create 3D digital models and images

Multimedia productions may included or be included in:

- aspects or sections of film/video production:
 - feature
 - documentary
 - short film and/or video
 - animations
 - commercials
 - live or pre-recorded performances
 - music video
 - television production of any type (music, drama, comedy, variety, sport)
 - live or pre-recorded television productions
- educational product
- game
- promotional product
- information product
- training product
- e-commerce
- a range of others

Relevant personnel may include:

- director
- producer
- project manager
- technical director
- navigation designers
- video producer
- editing personnel
- sound/music personnel
- director of photography
- 3D graphic, animation and modelling production personnel
- music composers
- sound effects personnel
- other technical staff
- other specialist staff

Industry standard 3D modelling software may include:

- a wide range of programs, current examples of which may be:
 - Autocad
 - 3d Studio Max
 - Infini-D
 - Bryce 3D
 - Lightwave

NOTE: These programs are constantly being upgraded and replaced and appropriate up-to-date programs should be selected.

Delivery platforms may include:

- world wide web
- CD-ROM
- DVD
- Beta-cam
- video
- film

UNIT

CUFIMA05A Create 3D digital models and images

EVIDENCE GUIDE

Underpinning skills and knowledge

Assessment must include evidence of essential knowledge of, and skills in, the following areas:

- appropriate 3D software to create models
- application of different 3D modelling and digital imaging methods and 3D modelling formats
- the principles of 3D modelling sequencing
- computers and computer operating systems
- the limiting factors of computer hardware
- strategies to test media sequences and products
- interpreting creative information, scripts and images
- understanding the capabilities of other collaborative personnel
- understanding the creative elements of a production
- design and drawing skills
- maintaining design integrity
- screen principles
- basic editing principles, eg composition, framing, pacing, timing
- information sources and management
- effective communication skills
- copyright laws, regulations and clearance procedures

Linkages to other units

This unit has linkages to the following units and combined training delivery and/or assessment is recommended:

- CUFIMA01A Produce and manipulate digital images
- CUFIMA04A Create 3D digital animation
- CUFMEM14A Create, manipulate and incorporate 2D graphics
- CUFMEM07A Apply principles of visual design/communication to the development of a multimedia product

Critical aspects of evidence

This unit of competence applies to a range of industry sectors. The focus of assessment will depend on the industry sector. Assessment must be customised to meet the needs of the particular sector in which performance is being assessed. Assessment should only address those variable circumstances, listed in the range of variables statements, which apply to the chosen context.

The following evidence is critical to the judgement of competence in this unit:

- the development and evaluation of creative 3D models and images which meet practical requirements including type of production and resource constraints, in particular budgetary constraints
- effective verbal and written communication with a range of individuals/organisations
- knowledge and application of a range of 3D model and image production methods and equipment

Method and context of assessment

Assessment may take place on the job, off the job or a combination of both of these. Off the job assessment must be undertaken in a closely simulated workplace environment.

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:

- practical demonstration (direct observation may need to occur on more than one occasion to establish consistency of performance)
- role play
- case studies
- work samples or simulated workplace activities
- oral questioning/interview aimed at the evaluating the process used in developing and realising the creative concept
- projects/reports/logbooks
- third party reports and authenticated prior achievements
- portfolios of evidence which demonstrate the processes used in developing and realising the creative concept

UNIT

CUFIMA05A Create 3D digital models and images

Resource requirements

Assessment requires access to a range of resources and equipment currently used by the multimedia industry.

Key competencies**Level**

Collecting, organising and analysing information
Communicating ideas and information
Planning and organising activities
Working with others and in teams
Solving problems
Using mathematical ideas and techniques
Using technology

-
2
2
2
2
2
3

UNIT

CUFMEM06A Design a multimedia product

UNIT DESCRIPTOR

This unit describes the skills and knowledge required for analysing the requirements and developing the design of a multimedia project within the cultural industries.

Element	Performance criteria
1 Determine the project requirements	1.1 Analyse the product brief and its components to identify the purpose and audience
	1.2 Consult with the client to clarify requirements
	1.3 Identify the audience characteristics to determine how they impact on all aspects of the design
	1.4 Identify the content that is to be covered by the product
	1.5 Confirm the project specifications in terms of the brief
2 Identify possible approaches and select the most appropriate	2.1 Identify possible approaches to the design and benefits of each
	2.2 Conduct the initial analysis including audience, environment for the final product, content and system
	2.3 Consult relevant creative and technical personnel to ensure that all possible approaches are considered
	2.4 Apply principles of visual, instructional and interactive design in selecting the best approach
	2.5 Select a systematic approach that will meet the creative, production and technical requirements specified in the brief outcome
3 Produce a design for the multimedia project design	3.1 Design the structure/architecture in terms of the brief and the proposed content
	3.2 Design the relationship between the multimedia elements required by the project
	3.3 Identify the interactivity elements required by the project and include them in the design
	3.4 Identify each multimedia element, design and specify their individual features within the design as a whole
	3.5 Establish the ease of use and consistency of navigation
	3.6 Develop the storyboard/s in accordance with the needs of the job and the development team
	3.7 Ensure the design is consistent with the project brief
	3.8 Identify deliverables and agree on milestones
4 Review and confirm the design	4.1 Review the design against the required outcomes of the project and clients' and audience needs
	4.2 Review the design to ensure it meets the creative requirements of the brief
	4.3 Review the design to ensure it meets the technical requirements of the brief
	4.4 Adjust the design as necessary after discussions with relevant personnel
	4.5 Clarify any legislative or ownership issues to comply with production and/or organisational requirements
	4.6 Confirm acceptance of the design including deliverables, milestones and timeline

UNIT

CUFMEM06A Design a multimedia product

RANGE OF VARIABLES

Variable

Scope

Appropriate personnel to consult may include:

- art director
- technical director
- instructional designers
- programmers
- graphic designers
- educators
- heads of department
- other technical staff
- clients
- other specialist creative and administrative staff

Project specifications may include:

- budget
- time frame
- access to facilities and resources
- technical issues:
 - disc space
 - delivery platform
 - testing plan
 - milestones
 - deliverables
 - prototyping
- personnel:
 - number
 - availability

Components of the brief may include:

- sound
- video
- images
- text
- animation
- graphics
- budget
- time frame
- technical issues

Aspects of the project included in the review may be:

- content
- interactivity
- ease of navigation
- instructional design
- creativity
- interest
- client/customer requirements

Development team may include:

- graphic artists
- researchers
- instructional designers
- game designers
- sound technicians
- animators
- technical specialists
- programmers

UNIT

CUFMEM06A Design a multimedia product

- Legislative and ownership issues may be:
- copyright
 - clearances
 - intellectual property
 - ownership of assets
 - confidentiality
 - non-disclosure agreements
- The design may be confirmed by:
- project manager
 - technical manager
 - clients
 - supervisor
 - executive producer
- Delivery platform may include:
- world wide web
 - CR-ROM
- Multimedia productions may include or be included in:
- aspects or sections of film/video production:
 - 4 feature
 - 5 documentary
 - 6 short film and/or video
 - 7 animations
 - 8 commercials
 - 9 live or pre-recorded performances
 - 10 music video
 - 11 television production of any type (music, drama, comedy, variety, sport)
 - 12 live or pre-recorded television productions
 - educational product
 - game
 - promotional product
 - information product
 - training product
 - e-commerce
 - a range of others

EVIDENCE GUIDE**Underpinning skills and knowledge**

Assessment must include evidence of essential knowledge of, and skills in, the following areas:

- principles of effective and creative design
- principles of visual communication
- application of a wide range of media techniques
- the theory of human/machine interaction
- principles of learning and instructional techniques

Linkages to other units

This unit has linkages to the following units and combined training delivery and/or assessment is recommended:

- CUFMEM07A Apply principles of visual design and communication to the development of a multimedia product
- CUFRAD01A Originate and develop the concept
- CUFGEN01A Develop and apply industry knowledge
- CUSRAD01A Collect and organise information
- CUSRAD02A Conduct research

Critical aspects of evidence

Assessment must be customised to meet the needs of the particular sector in which performance is being assessed. Assessment should only address those variable circumstances, listed in the range of variables statements, which apply to the chosen context.

The following evidence is critical to the judgement of competence in this unit:

- the ability to develop a design which satisfies the requirements of the project specifications
- the ability to achieve an original, effective and creative product

UNIT

CUFMEM06A Design a multimedia product

Method and context of assessment

Assessment may take place on the job, off the job or a combination of both of these. Off the job assessment must be undertaken in a closely simulated workplace environment.

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:

- practical demonstration (direct observation may need to occur on more than one occasion to establish consistency of performance)
- role play
- case studies
- work samples or simulated workplace activities
- oral questioning/interview aimed at evaluating the processes used in developing and realising the creative concept
- projects/reports/logbooks
- third party reports and authenticated prior achievements
- portfolios of evidence which demonstrate the processes used in developing and realising the creative concept

Resource requirements

Assessment requires access to a range of resources and equipment listed in the range of variables statement, currently used by the multimedia industry.

Key competencies**Level**

Collecting, organising and analysing information
 Communicating ideas and information
 Planning and organising activities
 Working with others and in teams
 Solving problems
 Using mathematical ideas and techniques
 Using technology

3
 3
 3
 3
 3
 2
 3

UNIT

CUFMEM07A Apply principles of visual design and communication to the development of a multimedia product**UNIT DESCRIPTOR**

This unit describes the skills and knowledge required to incorporate the principles of visual design and communication into the development of multimedia products for use within the cultural industries.

Element	Performance criteria
1 Receive and interpret the brief	1.1 Liaise with the relevant personnel to interpret and identify the objective and outcomes of the multimedia product, considering the application of visual design and communication techniques to ensure the creative, technical and production requirements can be met
	1.2 Identify all the relevant factors which may determine and affect visual design and communication concepts and application through the breakdown and interpretation of the brief and liaison with relevant personnel
	1.3 Clarify target user/audience to determine the format and delivery platform of the multimedia product through discussion with relevant personnel
2 Generate and assess ideas	2.1 Generate a range of visual design and communication ideas and collaborate, as required with relevant personnel to ensure contribution of a range of ideas and creative solution so the initial concept
	2.2 Discuss visual design and communication ideas which are technically feasible, respond to the brief and provide creative solutions to all design ideas
	2.3 Continuously reflect on and assess the creative ideas and solutions for implications on budget, timeline, technical feasibility and suitability to meet the brief
3 Conduct research	3.1 Research and compare techniques and tools for visual design and communication available for use in the creation of a multimedia product, exploring the characteristics and differences of digital imaging and traditional imaging
	3.2 Research and compare the range of delivery platforms available for multimedia products
	3.3 Explore the range of typographical and visual elements that are appropriate in the development of a multimedia product
	3.4 Identify the relationship between the visual components and the hardware required
	3.5 Organise research media and findings for use by all relevant personnel throughout the design development process, updating as required
	3.6 Evaluate the initial discussions and design brief against the findings and discuss with relevant personnel
4 Select media/materials for use in visual design and communication	4.1 Identify the range of visual design and communication techniques available and present to the relevant personnel for the consideration of their ability to meet the creative, technical and production brief
	4.2 Select the appropriate visual design and communication techniques which fulfil the creative, technical and production requirements of the brief
	4.3 Gather relevant materials and media, ensuring their compatibility to the creative and technical specifications of the multimedia product
	4.4 Consult relevant personnel to ensure that all required media is identified and sourced and ensuring that selection is based on the understanding of the user characteristics and capabilities

UNIT	CUFMEM07A Apply principles of visual design and communication to the development of a multimedia product	
5	Apply visual design and communication techniques	5.1 Use selected design techniques to develop the structure of the product, to ensure that all elements are fully documented for future use 5.2 Consider the relevant multimedia elements required to achieve the desired outcome 5.3 Discuss technical parameters and planning with relevant personnel to achieve the most appropriate format 5.4 Determine the range of appropriate design parameters and employ these to fulfil the brief, ensuring the creative, technical and production resources are adequate to achieve the final outcome
6	Evaluate visual and communication design techniques	6.1 Review the visual design and communication techniques to assess creative solutions to design brief, appropriateness to the user/audience and technical feasibility 6.2 Discuss and confirm additional requirements or modifications to the overall design and undertake any necessary amendments

RANGE OF VARIABLES**Variable**

Appropriate personnel to consult may include:

Scope

- art director
- technical director
- computer graphic designers
- programmers
- graphic designers
- heads of department
- other technical staff
- user/audience
- other specialist creative and technical staff

Design techniques:

- drawing
- storyboard
- drawing on a table
- scanning drawings and photographs
- using image and background generation tools
- thumbnail sketched
- flow charts

Visual design and communication elements may include:

- composition
- proportion
- balance
- framing
- colour
- line
- texture
- shape
- form
- tone
- scale
- movement
- typography:
 - point
 - tracking
 - leading
 - kerning
 - typeface
 - alignment

UNIT

CUFMEM07A Apply principles of visual design and communication to the development of a multimedia product

Visual multimedia elements may include:

- screen images:
 - graphics
 - photographs
 - drawings
 - video
 - film
- buttons
- colours
- text
- content
- style
- icons
- backgrounds
- flow chart

Delivery platform may include:

- world wide web
- CD-ROM

Multimedia productions may include or be included in:

- aspects or sections of film/video production:
 - feature
 - documentary
 - short film and/or video
 - animations
 - commercials
 - live or pre-recorded performances
 - music video
 - television production of any type (music, drama, comedy, variety, sport)
 - live or pre-recorded television productions
- educational product
- game
- promotional product
- information product
- training product
- e-commerce
- a range of others

UNIT

CUFMEM07A Apply principles of visual design and communication to the development of a multimedia product**EVIDENCE GUIDE**

Underpinning skills and knowledge	<p>Assessment must include evidence of essential knowledge of, and skills in, the following areas:</p> <ul style="list-style-type: none"> • application of principles of graphic and visual/communication design • characteristics of digital and traditional graphics • familiarity with the capability of a range of tools and techniques for producing and manipulating images • the ability to review decisions in terms of user characteristics and requirements • principles of learning and instructional approaches • planning and research • effective visual communication skills • knowledge of the scope, technology and components applicable to multimedia products • knowledge and application of a range of computer design software • knowledge of the limiting factors of computer hardware and software • knowledge of strategies to test instructional products • interpreting creative information, scripts and images • understanding the capabilities of other collaborative personnel • understanding the creative elements of a production • design and drawing skills • ability to maintain design integrity • information sources and management • copyright laws, regulations and copyright clearance procedures
Linkages to other units	<p>This unit has linkages to the following units and combined training delivery and/or assessment is recommended:</p> <ul style="list-style-type: none"> • CUFRAD01A Originate and develop a concept • CUFMEM06A Design a multimedia product • CUFMEM14A Create, manipulate, and incorporate 2D graphics
Critical aspects of evidence	<p>Assessment must be customised to meet the needs of the particular sector in which performance is being assessed. Assessment should only address those variable circumstances, listed in the range of variables statements, which apply to the chosen context.</p> <p>The following evidence is critical to the judgement of competence in this unit:</p> <ul style="list-style-type: none"> • design/produce an effective and creative design for a multimedia product which demonstrates the application of visual design and communication principles
Method and context of assessment	<p>Assessment may take place on the job, off the job or a combination of both of these. Off the job assessment must be undertaken in a closely simulated workplace environment.</p> <p>Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:</p> <ul style="list-style-type: none"> • practical demonstration (direct observation may need to occur on more than one occasion to establish consistency of performance) • role play • case studies • work samples or simulated workplace activities • oral questioning/interview aimed at evaluating the processes used in developing and realising the creative concept • projects/reports/logbooks • third party reports and authenticated prior achievements • portfolios of evidence which demonstrate the processes used in developing and realising the creative concept
Resource requirements	<p>Assessment requires access to a range of resources and equipment listed in the range of variables statement, currently used by the multimedia industry.</p>

UNIT

CUFMEM07A Apply principles of visual design and communication to the development of a multimedia product**Key competencies****Level**

Collecting, organising and analysing information
Communicating ideas and information
Planning and organising activities
Working with others and in teams
Solving problems
Using mathematical ideas and techniques
Using technology

3
3
3
2
2
1
2

UNIT

CUFMEM08A Apply principles of instructional design to a multimedia product**UNIT DESCRIPTOR**

This unit describes the skills and knowledge required for incorporating the principles of instructional design in the development of multimedia products for use within the cultural industries.

Element	Performance criteria
1 Receive and interpret the brief for the instructional design	1.1 Liaise with the relevant personnel to interpret and identify the objective and learning outcomes of the instructional product, ensuring the creative, technical and production requirements can be met
	1.2 Identify all the relevant factors which may determine and affect the instructional design and through the breakdown and interpretation of the brief and liaison with relevant personnel
	1.3 Clarify target user/audience to determine the format and delivery platform of the instructional product through discussion with relevant personnel
2 Generate and assess ideas	2.1 Generate a range of ideas for the instructional design which are technically feasible, respond to the brief and provide creative solutions to all design ideas
	2.2 Discuss ideas and collaborate, as required, with relevant personnel to ensure contribution of a range of ideas and creative solutions to the initial concept
	2.3 Continuously reflect on and assess the creative ideas and solutions for implications on budget, timeline, technical feasibility and suitability to meet the brief
3 Conduct research	3.1 Research the range of instructional approaches that reflect the requirements of the brief and may influence the overall design development
	3.2 Organise research media and findings for use by all relevant personnel throughout the design development process, updating as required
	3.3 Evaluate the initial discussions and design brief against the findings and discuss with relevant personnel
4 Select an instructional design model	4.1 Identify a range of instructional design models, considering their characteristics, difference and ability to meet the brief
	4.2 Consult with relevant personnel to ensure that the full range of models have been identified and sourced
	4.3 Select the instructional design model which fulfils the creative, technical and production requirements of the brief
	4.4 Ensure that selection is based on an understanding of the user characteristics and capabilities
5 Plan and compose the instructional product	5.1 Using selected instructional design techniques compose the structure of the product, ensuring that all elements are fully documented for future use
	5.2 Plan content, sequence and interactivity of learning activities to be included according to technical, creative and production requirements
	5.3 Determine the relevant multimedia elements necessary to construct the product
	5.4 Discuss technical parameters and planning with relevant personnel to achieve the most appropriate format
	5.5 Determine the range of appropriate design parameters and employ these to fulfil the brief, ensuring the creative, technical and production resources are adequate to achieve the final outcome
6 Evaluate instructional strategies and materials	6.1 Review instructional product to assess the application of creative solutions to the design brief, the technical feasibility and its appropriateness to the user/audience
	6.2 Discuss and confirm additional requirements or modifications to the instructional design and undertake any necessary amendments

UNIT

CUFMEM08A Apply principles of instructional design to a multimedia product**RANGE OF VARIABLES****Variable****Scope**

Aim of the instructional product may be:	<ul style="list-style-type: none"> • enhancing the learning environment • extending the educators' ability to educate • boosting the learners capacity • providing experiences not available in the real world • facilitating collaboration across cultural, social and physical boundaries • supporting personal and authentic learning
Relevant factors may include:	<ul style="list-style-type: none"> • audience • environment • resource requirements • language and developmental stage of the learner
Factors in instructional models may include:	<ul style="list-style-type: none"> • degree of interactivity • relevance to the audience (based on consultation and research) • accommodation of various learning styles • familiarity of the intended audience with the technology • language and literacy levels • balance between various components (images, text, sound, animation) • ease of use • level of interest and strategies for rewarding the user
Factors to be considered in instructional plan:	<ul style="list-style-type: none"> • material in logical order, one sequence flowing on from another • in order of increasing difficulty • opportunities for repetition and review of material • the need for interactivity • inclusion of a variety of approaches, techniques of presenting information and activities • structure of the information • what happens if the person makes a mistake • how to get help • techniques for holding the users' attention and making the program interesting
Delivery platform may include:	<ul style="list-style-type: none"> • world wide web • CD-ROM
Multimedia productions may include or be included in:	<ul style="list-style-type: none"> • aspects or sections of film/video production: <ul style="list-style-type: none"> ◦ feature ◦ documentary ◦ short film and/or video ◦ animations ◦ commercials ◦ live or pre-recorded performances ◦ music video ◦ television production of any type (music, drama, comedy, variety, sport) ◦ live or pre-recorded television productions • educational product • game • promotional product • information product • training product • e-commerce • a range of others

UNIT

CUFMEM08A Apply principles of instructional design to a multimedia product**EVIDENCE GUIDE**

Underpinning skills and knowledge	<p>Assessment must include evidence of essential knowledge of, and skills in, the following areas:</p> <ul style="list-style-type: none"> • principles of learning and instructional approaches • planning and research • effective communication • knowledge of the scope, technology and components applicable to multimedia products • knowledge and application of a range of instructional software • knowledge of the limiting factors of computer hardware and software • knowledge of strategies to test instructional products • interpreting creative information, scripts and images • understanding the capabilities of other collaborative personnel • understanding the creative elements of a production • design and drawing skills • ability to maintain design integrity • information sources and management • copyright laws, regulations and copyright clearance procedures
Linkages to other units	<p>This unit has linkages to the following units and combined training delivery and/or assessment is recommended:</p> <ul style="list-style-type: none"> • CUFRAD01A Originate and develop a concept • CUFMEM06A Design a multimedia product • CUFGEN01A Develop and apply industry knowledge • CUSRAD01A Collect and organise information • CUSRAD02A Conduct research
Critical aspects of evidence	<p>Assessment must be customised to meet the needs of the particular sector in which performance is being assessed. Assessment should only address those variable circumstances, listed in the range of variables statements, which apply to the chosen context.</p> <p>The following evidence is critical to the judgement of competence in this unit:</p> <ul style="list-style-type: none"> • ability to present and organise information for educational and learning purposes • understanding of a range of software for on-line learning • developed communication skills
Method and context of assessment	<p>Assessment may take place on the job, off the job or a combination of both of these. Off the job assessment must be undertaken in a closely simulated workplace environment.</p> <p>Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:</p> <ul style="list-style-type: none"> • practical demonstration (direct observation may need to occur on more than one occasion to establish consistency of performance) • role play • case studies • work samples or simulated workplace activities • oral questioning/interview aimed at evaluating the processes used in developing and realising the creative concept • projects/reports/logbooks • third party reports and authenticated prior achievements • portfolios of evidence which demonstrate the processes used in developing and realising the creative concept
Resource requirements	<p>Assessment requires access to a range of resources and equipment listed in the range of variables statement, currently used by the multimedia industry.</p>

Key competencies**Level**

Collecting, organising and analysing information	3
Communicating ideas and information	3
Planning and organising activities	3
Working with others and in teams	3
Solving problems	3
Using mathematical ideas and techniques	1
Using technology	2

UNIT

CUFMEM10A Design and create a multimedia interface

UNIT DESCRIPTOR

This unit describes the skills and knowledge to design and create the graphical user interface (GUI) for a multimedia product within the cultural industries.

Element**Performance criteria**

1	Plan an interface design	1.1	Obtain and study the project brief, navigation plan and technical specifications for a multimedia product
		1.2	Discuss the concept and specifications with relevant personnel to identify the design concept or metaphor
		1.3	Identify the budget, technical and resource constraints to ensure that all requirements are considered during the design phase
		1.4	Clarify the client and user/audience needs in order to identify the format of the interface to be used
2	Develop the interface	2.1	Visualise the concept and develop preliminary sketches
		2.2	Develop and present a series of roughs to relevant personnel and discuss the various merits for selection
		2.3	Continuously evaluate new ideas and incorporate them as appropriate
		2.4	Develop a final detailed sketch taking into consideration all ideas generated
		2.5	Gain approval from relevant personnel to ensure that the interface meets all requirements
3	Create the interface	3.1	Use appropriate industry standard software to create screen design, applying visual design principles to all screen elements
		3.2	Ensure all elements, screens, transitions, sequences, pages and buttons are integrated to conform to the basic design concept or metaphor
		3.3	Ensure all elements conform to the specified technical requirements
		3.4	Develop a prototype version of the interface and experiment to ensure its utility
4	Evaluate the interface	4.1	Present, discuss and evaluate the interface design prototype to relevant personnel, obtaining and noting detailed response, comments and any required changes
		4.2	Incorporate design changes to complete interface design
		4.3	Obtain final agreement from relevant personnel for finished design to ensure that the design brief has been achieved

RANGE OF VARIABLES**Variable****Scope**

Factors to be taken into account:

- budget
- resources
- metaphor
- purpose
- audience
- navigation design
- multimedia elements

Technical specifications may include:

- file format
- file size
- operating system
- delivery platform

UNIT

CUFMEM10A Design and create a multimedia interface

Relevant personnel may include:

- project manager
- navigation designers
- sound engineer
- video producer
- animators
- artists
- instructional designers
- programmers
- graphic designers
- technical staff
- other specialist staff

Multimedia product may include:

- educational product
- game
- promotional product
- information product
- training product

Industry standard software may include:

- a wide range of software, some current examples of which may be:
 - Photoshop
 - Illustrator
 - Corel Draw
 - Fireworks
 - Studio Max
 - Bryce
 - Freehand

NOTE: These programs are constantly being upgraded and replaced and appropriate up to date programs should be selected.

Delivery platform may include:

- world wide web
- CD-ROM

Multimedia productions may include or be included in:

- aspects or sections of film/video production:
 - feature
 - documentary
 - short film and/or video
 - animations
 - commercials
 - live or pre-recorded performances
 - music video
 - television production of any type (music, drama, comedy, variety, sport)
 - live or pre-recorded television productions
- educational product
- game
- promotional product
- information product
- training product
- e-commerce
- a range of others

UNIT

CUFMEM10A Design and create a multimedia interface

EVIDENCE GUIDE**Underpinning skills and knowledge**

Assessment must include evidence of essential knowledge of, and skills in, the following areas:

- ability to interpret a brief
- ability to follow a navigation design
- drawing skills
- understanding of visual design principles
- knowledge of appropriate 2D and 3D software to produce interface design
- understanding of cultural context of multimedia product use
- effective communication skills
- knowledge of strategies to test usability

Linkages to other units

This unit has linkages to the following units and combined training delivery and/or assessment is recommended:

- CUSGEN01A Use and adapt to new technology
- CUFMEM06A Design a multimedia project
- CUFWRT07A Write an interactive sequence for multimedia
- CUSRAD02A Conduct research

Critical aspects of evidence

Assessment must be customised to meet the needs of the context in which performance is being assessed. Assessment should only address those variable circumstances, listed in the range of variables statements, which apply to the chosen context.

The following evidence is critical to the judgement of competence in this unit:

- the development and evaluation of a graphic interface design for a multimedia product. The GUI should be user friendly, efficient, original and creative

Method and context of assessment

Assessment may take place on the job, off the job or a combination of both of these. Off the job assessment must be undertaken in a closely simulated workplace environment.

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:

- practical demonstration (direct observation may need to occur on more than one occasion to establish consistency of performance)
- role play
- case studies
- work samples or simulated workplace activities
- oral questioning/interview aimed at evaluating the processes used in developing and realising the creative concept
- projects/reports/logbooks
- third party reports and authenticated prior achievements
- portfolios of evidence which demonstrate the processes used in developing and realising the creative concept

Resource requirements

Assessment requires access to a range of resources, equipment and software listed in the range of variables statement, currently used by the multimedia industry.

Key competencies**Level**

Collecting, organising and analysing information	1
Communicating ideas and information	2
Planning and organising activities	3
Working with others and in teams	2
Solving problems	2
Using mathematical ideas and techniques	1
Using technology	3

UNIT

CUFMEM11A Design the navigation for a multimedia product

UNIT DESCRIPTOR

This unit describes the skills and knowledge required to design the navigation for a multimedia product.

Element	Performance criteria
1 Plan navigation	1.1 Discuss the concept with relevant personnel/client to ensure that the design brief is fully understood 1.2 Identify technical parameters of the product including its delivery platform 1.3 Identify the audience/user to ensure that all navigation requirements can be incorporated into the design 1.4 Identify the multimedia elements to be integrated into the product 1.5 Conduct necessary research to ensure that the script is fully scoped and contains all necessary contents
2 Develop navigation	2.1 Sketch overall product architecture and ensure that linkages are shown between the multimedia elements which identify all non-linear pathways 2.2 Ensure that user interactivity functions are clearly shown 2.3 Experiment with and determine the search functions to ensure that the navigation method is workable 2.4 Sketch a draft storyboard or flow chart for each sequence 2.5 Present navigation drafts to relevant personnel for comment to ensure that all appropriate ideas for navigation are generated 2.6 Review all suggestions against various merits and incorporate suggestions into the final design
3 Construct navigation	3.1 Draw freehand or use appropriate software to present navigation map/plan, storyboard or flow chart 3.2 Detail all necessary navigation specifications and functions so that documentation can be referred to throughout the development phase 3.3 Show frames, forms, tables and other structural elements where necessary 3.4 Show all linkages to multimedia elements activated by buttons and other interactive 'hotspots' 3.5 Ensure intuitive and logical flow for each non-linear sequence 3.6 Ensure appropriate and logical exit points 3.7 Develop templates where necessary for integration of specific text and graphic elements
4 Evaluate navigation	4.1 Present the navigation design to relevant personnel 4.2 Discuss with relevant personnel strategies to evaluate the navigation design 4.3 Obtain detailed response and opinions from legitimate sources 4.4 Incorporate design changes to complete navigation design 4.5 Obtain final agreement from relevant personnel for finished design

UNIT

CUFMEM11A Design the navigation for a multimedia product

RANGE OF VARIABLES

Variable

Scope

Production specifications may include:

- budget
- resources
- metaphor
- purpose
- audience
- multimedia elements
- script

Technical specification may include:

- file format
- file size
- operating system
- delivery platform

Relevant personnel may include:

- project manager
- sound engineer
- video producer
- animators
- artists
- instructional designers
- programmers
- graphic designers
- technical staff
- other specialist staff

Multimedia product may include:

- educational produce
- game
- promotional product
- information product
- training product

Industry standard software may include:

- a wide range of software, some current examples of which may be:
 - Story Vision
 - Story Space
 - Powerpoint

NOTE: These programs are constantly being upgraded and replaced and appropriate up to date programs should be selected.

Delivery platform may include:

- world wide web
- CD-ROM

Navigation elements may include:

- characters
- buttons
- labels
- environments
- props
- headings
- menus

UNIT

CUFMEM11A Design the navigation for a multimedia product

Multimedia productions may include or be included in:

- aspects or sections of film/video production:
 - feature
 - documentary
 - short film and/or video
 - animations
 - commercials
 - live or pre-recorded performances
 - music video
 - television production of any type (music, drama, comedy, variety, sport)
 - live or pre-recorded television productions
- educational product
- game
- promotional product
- information product
- training product
- e-commerce
- a range of others

EVIDENCE GUIDE**Underpinning skills and knowledge**

Assessment must include evidence of essential knowledge of, and skills in, the following areas:

- ability to interpret a brief
- drawing skills
- knowledge of the limitations and capacities of various delivery platforms
- knowledge of appropriate software to draw storyboard or flow chart
- understanding of cultural context of multimedia product use
- effective communication skills
- knowledge of strategies to test usability

Linkages to other units

This unit has linkages to the following units and combined training delivery and/or assessment is recommended:

- CUFMEM06A Design a multimedia product
- CUFWRT07A Write an interactive sequence for multimedia
- CUSRAD01A Collect and organise information
- CUFMEM08A Apply principles of instructional design to media project

Critical aspects of evidence

This unit of competence applies to a range of outcomes and the focus of assessment will depend on the outcome required. Assessment should only address those variable circumstances, listed in the range of variables statements, which apply to the chosen context.

The following evidence is critical to the judgement of competence in this unit:

- the development of a navigation design for a multimedia product that is effective and achieves the specified outcome

Method and context of assessment

Assessment may take place on the job, off the job, or a combination of both of these. Off the job assessment must be undertaken in a closely simulated workplace environment.

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:

- practical demonstration (direct observation may need to occur on more than one occasion to establish consistency of performance)
- role play
- case studies
- work samples or simulated workplace activities
- oral questioning/interview aimed at evaluating the processes used in developing and realising the creative concept
- projects/reports/logbooks
- third party reports and authenticated prior achievements
- portfolios of evidence which demonstrate the processes used in developing and realising the creative concept

UNIT

CUFMEM11A Design the navigation for a multimedia product**Resource requirements**

Assessment requires access to a range of resources and equipment listed in the range of variables statement, currently used by the multimedia industry.

Key competencies**Level**

Collecting, organising and analysing information	3
Communicating ideas and information	3
Planning and organising activities	3
Working with others and in teams	2
Solving problems	2
Using mathematical ideas and techniques	1
Using technology	3

UNIT

CULLB412A Undertake cataloguing activities

UNIT DESCRIPTOR

Basic copy or descriptive cataloguing and catalogue maintenance duties requires practitioners to work in accordance with well-established procedures and guidelines.

ELEMENT**PERFORMANCE CRITERIA**

1.	Undertake cataloguing/classification of material	1.1	Suitable hard copy and electronic sources of ready-made cataloguing records are selected
		1.2	Material is checked accurately against existing catalogue records in accordance with organisational procedures
		1.3	Record is corrected and modified to conform to the organisation's cataloguing/classification system(s), requirements and relevant standards
		1.4	Detection of errors in cataloguing/classification copy or inappropriate subject headings reflects understanding of relevant cataloguing tools and subject matter of the information being catalogued/classified
		1.5	Difficulties or uncertainties are discussed with appropriate person(s) and resolved and referred to appropriate persons for cataloguing/classification or other action
		1.6	Cataloguing practices reflect knowledge of organisation's cataloguing system(s), and use of national network and organisation's computer system, including command languages and procedures
2.	Provide cataloguing support	2.1	Material to be catalogued by others is checked against existing records and details added or corrections made to facilitate cataloguing
		2.2	Catalogue maintenance is carried out in accordance with organisational procedures and priorities
		2.3	An accurate and accessible record of the classification and holdings of the organisation is created and/or maintained, in accordance with national and organisational procedures and guidelines
		2.4	Statistics of information catalogued are accurately recorded in accordance with organisational procedures
3.	Create item level data	3.1	Item is assigned an appropriate location
		3.2	Relevant access conditions are recorded
		3.3	Item maintenance requirements are recorded

RANGE OF VARIABLES

This unit of competency should be demonstrated in accordance with the organisation's:

- goals, values, objectives, plans, systems and processes
- business and performance plans
- ethical standards
- client service standards
- access and equity principles and practices
- quality and continuous improvement processes and standards
- defined resource parameters

Legislation, codes and national standards relevant to the workplace may include:

- Copyright Act and amendments
- Archives Act
- Equal Opportunity legislation
- various cataloguing standards such as AACR2, DDC etc

UNIT

CULLB412A Undertake cataloguing activities

Information service providers include a range of organisations or agencies that provide information, eg:

- libraries
- museums, galleries and archives
- record management units
- government departments, agencies or shopfronts
- business and financial information units
- information units within a parent organisation
- community advisory organisations or bureaus

Customers and suppliers may be:

- internal or external
- drawn from existing or new sources

Resources may include:

- people
- finance
- information
- equipment
- power/energy
- time
- buildings/facilities
- technology

Cataloguing will be within clear parameters and guidelines and in accordance with well-established procedures. It will include basic copy cataloguing where an existing record is found from onsite or offsite sources.

Cataloguing may include:

- basic descriptive cataloguing
- a record which is flagged as being from a source known to be normally complete and reliable
- an apparently complete existing record found in the national database but from a source which may be less complete or reliable but acceptable to the library

Catalogues will generally be automated, but may be in paper or electronic formats.

Material to be catalogued may include:

- books
- journals
- audio-visual items
- CD-ROMs
- music
- maps
- toys
- games
- material in English or languages other than English
- computer files and software
- electronic documents and journals
- network resources
- microforms

Systems and standards may include:

- AUSMARC
- USMARC
- AACR (latest edition and amendments)
- SCIS Subject Headings
- Dewey Decimal Classification
- Library of Congress/classification
- Local protocols

UNIT

CULLB412A Undertake cataloguing activities

Appropriate person(s) for referral may include more experienced or senior staff in the library or other experts.

Catalogue maintenance includes:

- relocating items
- re-cataloguing items, eg from manual to computerised format
- updating of files
- correcting holdings information

Access conditions includes recording specific conditions which apply to materials such as:

- not for loan
- shelved in specific areas of the organisation
- housed on or off site
- restrictions on loans periods

Item maintenance includes:

- checking disks for viruses on a regular basis
- checking special material to ensure all components are correct, eg pictorial materials, slides

EVIDENCE GUIDE

Critical aspects of evidence

Evidence to demonstrate consistent achievement of this unit's outcomes includes:

- demonstrated accuracy and organisational abilities
- sound knowledge of bibliographic and catalogue record components
- knowledge and understanding of cataloguing conventions

Underpinning knowledge and skills

Skills and knowledge are required in:

- communication and promotion
- working effectively as part of a cooperative network
- information literacy
 - checking bibliographic details
 - adapting/upgrading bibliographic records to suit client needs
 - acquiring and using information appropriate to work responsibilities
 - evaluating the quality and relevance of information that can be accessed through the Internet
 - searching databases efficiently
- planning and organisation
- using time management strategies and setting priorities
- information management
 - library cataloguing policies and procedures
 - applying international standards and systems used in Australian libraries, eg AACR, AUSMARC, USMARC, DDC, LCC and SCIS
 - applying the principles of bibliographic description and access
 - applying the principles of subject heading and classification schemes
 - cataloguing levels appropriate to different types of libraries
 - applying catalogue maintenance processes
 - locating suitable bibliographic records to match items
 - preparing basic descriptive cataloguing records
 - checking subject headings and classification numbers, using latest editions of suitable tools
 - resolving simple cataloguing problems
 - maintaining cataloguing records, including authorities

UNIT

CULLB412A Undertake cataloguing activities

- information technology
 - operating computer hardware to manage files and disks, print documents and use a keyboard and mouse
 - operating computer software to launch applications, retrieve and save files, use the basic functions of applications, back up data, establish and follow procedures, and add simple data and records to information systems
 - the potential damage caused by viruses and procedures to prevent them
 - following basic information technology security procedures
 - maintaining and managing information technology for stand-alone computers
 - working within a network and understanding its related information functions
- the work environment
- the role, functions and services of the organisation
- Copyright Act and amendments
- applying principles of best practice to own work

Resource implications

Competency in this unit should be assessed using all the relevant resources commonly provided in the cataloguing unit of an information service provider. Specific assessment tools may include:

- strategic plans and relevant policies and procedures manuals
- relevant cataloguing tools

Method and context of assessment

- Evidence of competence may be obtained through a variety of methods including:
 - observation
 - oral questioning
 - examination of assessee's portfolio/CV
 - authenticated examples of assessments and/or assignments from formal education courses
 - supporting statement from section manager or equivalent
 - position descriptions
 - samples of cataloguing and classification work
 - discussion of case studies
 - procedures manual written by applicant

Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Assessment should occur either off the job, on the job or in a combination of on and off the job.

KEY COMPETENCIES

Collect, analyse & organise information	Communicate ideas & information	Plan & organise activities	Work with others & in teams	Use mathematical ideas & techniques	Solve problems	Use technology
3	2	3	2		2	3

UNIT

PRAS01A

Undertake security assessment

UNIT DESCRIPTOR

This unit covers the determination of a client's security requirements and security risk.

This unit applies to small domestic and commercial environments

ELEMENTS AND PERFORMANCE CRITERIA**1 Determine client's security requirements**

- 1.1 Client's reasons for security system are established and security risks as perceived by client are identified
- 1.2 Information on important assets or areas to be protected is gained from the client through questioning and discussion
- 1.3 Site restrictions, regulations and requirements are identified
- 1.4 Required security system functions are identified and discussed with client to ensure client's needs can be satisfied
- 1.5 Where client requirements are unable to be met, the client is referred to the appropriate service in accordance with company requirements
- 1.6 Alternative security system options, if required, are identified and discussed with client to ensure client needs can be satisfied
- 1.7 Financial expectations of client are identified to ensure solutions are within budgetary constraints

2 Conduct site assessment

- 2.1 Details relating to access to site and specific site requirements are organised and confirmed with client
- 2.2 Physical assessment of site is made where possible to ensure that security system matches identified need
- 2.3 Full details of any existing security equipment/system on the client's premises are obtained
- 2.4 A floor plan of the site is drawn, or obtained from the client where available, so that building structures and layout are clearly identified
- 2.5 Floor plan is checked and confirmed with the client to avoid errors
- 2.6 Type and condition of building structures is identified
- 2.7 Potential weak points and risk areas of the site are identified
- 2.8 Environmental factors in the immediate area affecting the security risk of the site are identified

3 Document security assessment

- 3.1 All required documentation is completed promptly and accurately in accordance with company requirements
- 3.2 Client confirmation of documentation requirements is obtained where required
- 3.3 An accurate client brief summarising the client's security requirements and assessed security risk is completed where required
- 3.4 Indemnity is included to protect interests of all parties where required

RANGE OF VARIABLES

Security assessment may be carried out by: owner; manager; director; supervisor; sales representative; installer; technician

Assessment methods may include: discussion with client; visual inspection; review of client floor plans and supporting documentation; questioning police, insurance companies and other bodies

Client may include: owner; property agent; tenant; building supervisor; manager; project manager; agent; government and legal instruments/agencies

Client's reasons for security system may include: protection of persons, property or assets; conformance with insurance, government or other requirements

Security system may include: electronic; mechanical; computerised; procedural

Security risks may include: vandalism; trespass; break-in; burglary; assault or harm; sabotage; unauthorised access; theft; pilferage; deliberate or accidental damage

Information may include: value or importance of assets; insurance policy; special rooms or areas requiring higher level of protection

Site restrictions, regulations and requirements may include:

Union requirements; access; occupational requirements; security clearance; building codes and regulations; heritage listings; physical restrictions and limitations

Functions may include: requirements for access, movement and restriction; detection; controlling; monitoring; reporting; alerting

UNIT

PRASAS01A

Undertake security assessment

Alternative security system options may include:

Any other viable security system component, equipment or service which may satisfy client needs

Details relating to access to site and specific site requirements may include: time of access; access codes; keys; passes; security clearance; union requirements; OHS requirements; building codes and regulations; heritage listings Floor plan may be drawn or written

Building structures may include: external and interior walls; doors; windows; floors; ceilings; roofs

Weak points and risk areas may include: unsecured windows; entry points screened from public view; external doors without deadlocks or with hinges opening outward; flimsy building materials; client habits (eg. doors left unlocked)

Environmental factors may include: adequacy of street lighting; traffic flow; neighbourhood crime rating; proximity of other buildings

Documentation may include: checklists; reports; floor plans; client briefs; specifications; schedules

Company requirements may be found in: operations manuals; induction documentation; training materials; requirements documents; insurance policy agreements; verbal or written instructions, client and company confidentiality requirements; quality assurance documents

Client confirmation will be written, and may include: signature; letter of confirmation; works order

Client brief may include: listing of client requirements; site assessment; determination of security risk; general recommendations for security system required

Indemnity will be written, and may include: company identification information; liability terms and conditions; limits of system; exclusions; terms of trade; suitable sign-off arrangements by company and client; copyright requirements

EVIDENCE GUIDE**Assessment Statement**

Assessment is the process of collecting evidence and making judgments on the extent and nature of progress towards the achievement of the performance standard outlined in this unit

Assessment against this unit of competency may involve any of the following techniques:

Continuous assessment in an institutional setting that simulates the conditions of performance describe in the elements, performance criteria and range of variables statement that make up the unit

Continuous assessment in the workplace, taking into account the range of variables affecting performance

Self-assessment on the same terms as those described above

Simulated assessment or critical incident assessment, provided that the critical incident involves assessment against performance criteria and an evaluation of underpinning knowledge and skill required to achieve the required performance outcomes

This unit may be assessed in conjunction with Unit PRASAS02A: Access security requirements in complex or high risk environments

Guidance for Assessment

Evidence of competency is best obtained by observing activities in the field and in the office and reviewing the outcome of one complete assessment under normal industry operating conditions. If this is not practicable, observations in realistic simulated environments may be substituted

Evidence of competency will include:

determines client's security requirements (including: security needs; assets/areas to be protected; system function requirements; security system options available; and client's budget)

conducts a site assessment where required, including: drawing/obtaining floor plan and identifying and noting building structures

ensures security system can match identified needs

identifies potential weak points/risk areas of the site

identifies environmental factors in the immediate area affecting the security risk of the site

completes all necessary documentation, including a client brief summarising all security requirements and assessed security risk

Underpinning Knowledge

security risk assessment

security equipment/system options available

types and functions of security equipment and systems

building construction methods and types

basic requirements for installation of security systems

company requirements

company and client confidentiality requirements

duty of care

relevant industry standards and codes of conduct

UNIT

PRSAS01A

Undertake security assessment

Underpinning Skills

communication, including: liaison; client service; report writing; consultation; interpersonal; listening; questioning; gaining feedback; giving information

observation and assessment

drawing and drafting

read and interpret plans, designs and specifications

basic numeracy skills

safe and efficient work practices • methodical organisation of work • time management

RESOURCES REQUIRED FOR ASSESSMENT

Security equipment

Access to property environment to make assessment

Case studies

Criterion referenced assessment instruments

Guidelines on security assessment

Relevant codes of practice

A suitable venue: either in the workplace or classroom

Access to a registered provider of assessment services

UNIT

PRASAS02A

Assess security requirements in complex or high risk environments

UNIT DESCRIPTOR

This unit covers the determination of a client's security requirements in complex and high risk environments. This unit applies to large, complex domestic and commercial environments involving a range of security systems, and a range of high risk environments (including banks, restricted facilities, government and legal instruments/agencies, corrective institutions).

ELEMENTS AND PERFORMANCE CRITERIA**1 Review client requirements**

- 1.1 Where required, agreement outlining terms and conditions of security assessment is made and confirmed with client
- 1.2 Client's security requirements are determined from client brief where available
- 1.3 Discussions with client/agent are held to clarify and confirm security needs and requirements
- 1.4 Levels of security appropriate to risk level are identified and confirmed with client
- 1.5 Current industry practice in the provision of security systems in similar environments is reviewed and evaluated to provide information on appropriate systems and system performance
- 1.6 Other relevant parties are identified and consulted where required to clarify security requirements

2 Assess site

- 2.1 Details relating to access to site and site requirements are organised and confirmed with client prior to site assessment
- 2.2 Appropriate licences and security clearances are identified and obtained where required, in accordance with client and company requirements
- 2.3 All available building documentation, including floor plans, is obtained and used to aid site assessment
- 2.4 Physical site assessment includes identification of high risk areas, weak points, access and egress patterns, and existing security equipment/systems
- 2.5 Physical site assessment is made to accurately determine all security system requirements

3 Document security assessment

- 3.1 All required documentation is completed promptly and accurately in accordance with company requirements
- 3.2 Client confirmation of documentation requirements is obtained where required
- 3.3 An accurate client brief summarising the client's security requirements and assessed security risk is completed where required
- 3.4 Indemnity is included to protect interests of all parties where required

RANGE OF VARIABLES

Agreement may include: confidentiality requirements; security clearances; security procedures; date for completion of assessment; reporting requirements

Security assessment may be carried out by: owner; manager; director; supervisor; sales representative; installer; technician

Client may include: owner; property agent; tenant; building supervisor; manager; project manager; agent; government and legal instruments/agencies

Security system may include: electronic; mechanical; computerised; procedural

Other relevant parties may include: police; professional bodies; existing security service providers; building occupiers; regulatory bodies; builder; architect; project manager

Details relating to access to site and site requirements may include: access and egress points; time of access; access codes; keys; passes; security clearance; union requirements; OHS requirements; building codes and regulations; heritage listings; physical; noise control

Security risks may include: vandalism; trespass; burglary; assault or harm; sabotage; unauthorised access or egress; theft; pilferage; deliberate or accidental damage

Physical site assessment may include:

type and condition of building structures; weak points and risk areas; site restrictions, regulations and requirements; access and egress patterns; floor plan; existing security equipment/systems

EVIDENCE GUIDE**Assessment Statement**

Assessment is the process of collecting evidence and making judgments on the extent and nature of progress towards the achievement of the performance standard outlined in this unit

UNIT

PRASAS02A

Assess security requirements in complex or high risk environments

Assessment against this unit of competency may involve any of the following techniques:

- Continuous assessment in an institutional setting that simulates the conditions of performance describe in the elements, performance criteria and range of variables statement that make up the unit
- Continuous assessment in the workplace, taking into account the range of variables affecting performance
- Self-assessment on the same terms as those described above
- simulated assessment or critical incident assessment, provided that the critical incident involves assessment against performance criteria and an evaluation of underpinning

knowledge and skill required to achieve the required performance outcomes**This unit may be assessed in conjunction with Unit PRASAS01A: Undertake security assessment****Guidance for Assessment:**

Evidence of competency is best obtained by observing activities in the field and in the office and reviewing the outcome of several security assessments in a complex or high risk environment under normal industry operating conditions. If this is not practicable, observations in realistic simulated environments may be substituted

Evidence of competency will include:

- effectively reviews client requirements to determine security system to meet client needs
- identifies a range of security systems appropriate to needs of client
- confirms integration and compatibility of systems
- conducts physical site assessment to determine security system requirements
- documents security assessment in accordance with company requirements

Underpinning Knowledge

- security risk assessment
- security equipment/system options available
- types and functions of security equipment and systems
- range of high risk environments and their security requirements
- levels of security to match differing levels of risk
- compatibilities and integration of security systems
- building construction methods and types
- basic requirements for installation of security systems
- company requirements
- company and client confidentiality requirements
- duty of care

Underpinning Skills

- communication, including: liaison; client service; report writing; consultation; interpersonal; listening; questioning; gaining feedback; giving information
- observation and assessment
- risk identification
- safe and efficient work practices
- methodical organisation of work
- time management

Resources Required for Assessment

- Security equipment
- Access to complex/high risk property environment to make assessment
- Case studies
- Criterion referenced assessment instruments
- Guidelines on security assessments for high risk/complex environments
- Relevant codes of practice
- A suitable venue: either in the workplace or classroom
- Access to a registered provider of assessment services

UNIT

PRAS03A

Specify and configure security system

UNIT DESCRIPTOR

This unit covers the design, specification and configuration of a security system which meets client security requirements. This unit only applies to provision of security equipment/systems for complex and high risk environments

ELEMENTS AND PERFORMANCE CRITERIA**1 Clarify client requirements for security system**

- 1.1 Client's security requirements are reviewed to ensure accuracy
- 1.2 Security and Investigative Services is relevant to the nature of the client's security and price requirements
- 1.3 System is acceptable to client and minimises disruption to client activity

2 Clarify site requirements

- 2.1 Physical site assessment of building types and structures is made where possible to ensure accuracy in system design and to determine placement and positioning of security system equipment
- 2.2 Floor plans are used where possible to ensure accuracy in system design and to determine placement and positioning of security system equipment
- 2.3 Site availability and access is established
- 2.4 Site restrictions, regulations and requirements are identified

3 Prepare system schematics and specifications

- 3.1 Schematics are clear and accurate and do not confuse users of the document
- 3.2 Schematics prepared show detail of the security system installation
- 3.3 All required system specifications are documented without omission
- 3.4 Level of detail enables accurate costings to be prepared
- 3.5 Security equipment and material requirements can be accurately prepared from the specification
- 3.6 Schematics and specifications comply with company requirements and relevant legislation

4 Configure security system specification

- 4.1 Equipment and materials selected for the security system are suitable for their purpose and meet client security requirements

5 Confirm security system specification and configuration with client

- 5.1 Proposed security system specification and configuration is presented to client with clear explanations
- 5.2 Documentation prepared is verified with customer in accordance with company requirements, and authorisation to proceed obtained where required
- 5.3 Indemnity is included to protect interests of all parties where required

RANGE OF VARIABLES

This unit applies to the specification and configuration required for complex and high risk environments

Client may include: owner; property agent; tenant; building supervisor; manager; project manager; agent; government and legal instruments/agencies

Security system may include: electronic; mechanical; computerised; procedural

Client security requirements may include: requirements as detailed in security assessment or client brief; system capabilities and functions; equipment and/or system type; equipment locations and positions; installation procedures and schedule; service and maintenance; monitoring; warranty/guarantee; budget

Building types and structures may include: walls: brick, plaster, weatherboard, framing, concrete; doors: glass, wood, steel, metal; floors: timber, tile, slate, concrete slab, under floor space; ceilings: suspended plaster; false; timber; concrete; ceiling space; roof: tile, metal; hazards: asbestos, electrical wiring

Floor plans may include: building specifications, architects drawings; floor plans documented during security assessment

Placement and positioning of security system equipment may include:

on walls; within walls; within doors; under floors; within concrete pores; within ceilings or vents; on windows; on external beams; external under eaves

Site restrictions, regulations and requirements may include: union requirements; access; occupational requirements; security clearance; building codes and regulations; heritage listings; physical restrictions and limitations

UNIT

PRAS03A

Specify and configure security system

Clear and accurate may include: drawing title and details; plans drawn to scale; inclusion of dimensions and other measurements; key providing explanation for symbols or abbreviations used; use of standard drawing and drafting symbols

Schematics may include: security system component positioning; cable routes; fixtures; locations of detectors; frame location; control panel locations; switchboards; telephone mainframes; power points

Security equipment may include: detection devices; audible and visual warning devices; cameras; monitors and control equipment; control panels; intercoms; wireless equipment; car alarms; electronic readers; electronic recognition controls; locks and locking systems; grills; lighting; boom gates; turnstiles; bank pop up screens; biometrics; electric and mechanical fire safety and fire locking systems; power supplies; batteries; security doors and door controls

Materials may include: cable; support system; connectors; frames; fixings; conduits; ducts; housings; pedestals

Suitability for purpose may include considerations of: dimensions of areas to be secured; area usage; aesthetics of environment; environmental hazards (eg. air conditioners, animals, rodents and birds, lighting etc); equipment specifications and limitations

Documentation may include: reports; schematic drawings; floor plans; schedules; work orders

Company requirements may be found in: operations manuals; induction documentation; training materials; policy and procedures documents; insurance policy agreements; verbal or written instructions; client and company confidentiality requirements; quality assurance documents

Client verification and authorisation will be written, and may include: signature; letter of verification or authorisation; works order

Indemnity will be written, and may include: company identification information; liability terms and conditions; limits of system; exclusions; terms of trade; suitable sign-off arrangements by company and client; copyright requirements

Legislative considerations may include:

Australian building codes and regulatory requirements for specification and configuration of security system; relevant Australian standards for specification and configuration; OHS safe work practice and duty of care to others in the immediate work environment

EVIDENCE GUIDE

Assessment Statement

Assessment is the process of collecting evidence and making judgments on the extent and nature of progress towards the achievement of the performance standard outlined in this unit

Assessment against this unit of competency may involve any of the following techniques:

- Continuous assessment in an institutional setting that simulates the conditions of performance describe in the elements, performance criteria and range of variables statement that make up the unit
- Continuous assessment in the workplace, taking into account the range of variables affecting performance
- Self-assessment on the same terms as those described above
- Simulated assessment or critical incident assessment, provided that the critical incident involves assessment against performance criteria and an evaluation of underpinning knowledge and skill required to achieve the required performance outcomes

This unit may be assessed in conjunction with unit PRAS22A, Determine security equipment/system modifications

Guidance for Assessment

Evidence of competency is best obtained by observing activities in the field and in the office and reviewing the design, specification and configuration of a security system under normal industry operating conditions. If this is not practicable, observations in realistic simulated environments may be substituted

Evidence of competency will include:

- clarification of client's security requirements
- clarification of site requirements (including: site assessment to ensure correct positioning of equipment; determination of site availability and access; identification of site restrictions, regulations and requirements)
- preparation of detailed and accurate security system schematics and specifications
- selection of appropriate security equipment and materials from specification
- documentation of specification and configuration
- presentation and confirmation of specification and configuration to client

UNIT

PRASAS03A

Specify and configure security system

Underpinning Knowledge

- types, functions and specifications of security equipment and systems
- building construction methods and types
- requirements for installation of security systems
- drawing and drafting symbols
- drawing and drafting techniques
- company pricing policy and procedures
- company requirements
- company and client confidentiality requirements
- duty of care

Underpinning Skills

- communication, including: liaison; client service; report writing; consultation; interpersonal; listening; questioning; gaining feedback; giving information
- drawing and drafting plans, layouts, structures and systems
- presentation of security system specification and configuration documentation for client
- read and interpret plans, designs and specifications
- methodical organisation of work
- numerical calculations: including: time; measurements; quantities
- safe and efficient work practices
- time management

Resources Required for Assessment

- Access to client security requirements and site requirements
- Range of security equipment/systems
- Case studies
- Criterion referenced assessment instruments
- Guidelines on security system specifications/configurations
- Relevant codes of practice
- A suitable venue: either in the workplace or classroom
- Access to a registered provider of assessment services

UNIT

PRSIR11A

Monitor security risk management plan

UNIT DESCRIPTOR

Covers checking on a regular basis effectiveness of security risk management plan in place, but does not include periodic or event driven review

ELEMENTS AND PERFORMANCE CRITERIA**1 Establish monitoring procedures**

1.1 Strategies to develop an environment which encourages cooperation from all employees to assist with the monitoring process are developed and implemented in collaboration with the client

1.2 Monitoring procedures and systems are instigated which provide ongoing, accurate and timely information on effectiveness of security risk management measures of the organisation

1.3 Processes to be monitored are allocated a priority in accordance with their significance to contributing to maintaining normal operations of the organisation, cost of monitoring and client's requirements

1.4 Methods selected for monitoring overall system and specific measures have minimal impact on organisation's normal operations

2 Collect and record results of monitoring process

2.1 Details of all security incidents are collected systematically and recorded in accordance with security risk management plan

2.2 Suppliers of services to the organisation are monitored for security incidents and details recorded

2.3 Client is advised immediately of failure or immanent failure of existing measures which may threaten operation of the organisation in the short term

3 Evaluate results

3.1 Effectiveness of procedures is assessed against criteria and other measures included in plan

3.2 The threat environment is continually monitored to identify trends and alterations

3.3 Collected information is subject to statistical analysis whenever sufficient reliable data is available

3.4 An assessment is made of need to retain existing measures based on their effectiveness in protecting assets and any actual or intended changes in the organisation's operating environment

3.5 Causes of deficiencies in measures are determined by regular evaluation of all available information

3.6 Indications of breakdown or potential breakdown of measures are confirmed or discounted by follow-up investigations including tests in accordance with plan

4 Implement corrective measures

4.1 Strategies and resource implications for implementing corrective action are evaluated

4.2 Recommended action is implemented in accordance with client's requirements and after authority gained

4.3 Monitoring processes are regularly based on an assessment of reliability and completeness of information gained and refinements made in consultation with client and in accordance with plan

RANGE OF VARIABLES

Monitor may include: checking; supervising; observing critically or recording the progress of the activity; process; action or system on a regular basis to identify change

Monitoring threat environment may include: by incident reports; statistical analysis of incident reports; intelligence networks; contacts; current trends; noting changes to operation environment

Strategies may include: education and awareness programs; newsletters; posters; videos; competitions; talks etc. by senior management

Suppliers could include: cleaning; security; catering services

Measures include: procedures; training and education; alarms; barriers; back-up systems; personnel vetting; controlled access; monitoring

Statistical analysis may include: frequency analysis; departure from norm; average occurrence; trend analysis; run charts; histograms

Criteria may include: response time; security awareness; serviceability of equipment including back-up systems; breaches of law; organisation's regulations etc during response; reporting of 'incident'; corruption of information eg. passwords; availability of on-call personnel

Operating environment includes: organisation's role; size; structure; employee number; location; stability of neighbours; associates and competitors; operating procedures and practice; equipment; morale; executive staff and key appointments; communication systems; corporate competitive risk exposure

UNIT

PR SIR11A

Monitor security risk management plan

Assets include: people; equipment; facilities; systems; information; information systems and sources; reputation; goodwill; intellectual property; work processes/practices; business plans; output

Includes assets an organisation owns; leases or has custody of

Action may include: repair; replacement; augmentation; duplication or redesign of existing procedures; systems and equipment; education and training; additional personnel

EVIDENCE GUIDE**Assessment Statement**

Assessment is the process of collecting evidence and making judgments on the extent and nature of progress towards the achievement of the performance standard outlined in this unit

Assessment against this unit of competency may involve any of the following techniques:

- Continuous assessment in an institutional setting that simulates the conditions of performance describe in the elements, performance criteria and range of variables statement that make up the unit
- Continuous assessment in the workplace, taking into account the range of variables affecting performance
- Self-assessment on the same terms as those described above
- Simulated assessment or critical incident assessment, provided that the critical incident involves assessment against performance criteria and an evaluation of underpinning knowledge and skill required to achieve the required performance outcomes

Guidance for Assessment

It is essential competence is demonstrated in determining causes of deficiencies in existing security risk management measures

The assessment should also include:

- knowledge and risk assessment techniques and processes
- understanding of the broad process of security risk management
- knowledge of strategies for developing cooperative environment (refer Performance Criteria 1.1, range of variables)
- knowledge of the threat environment of the organisation (refer range of variables)
- knowledge of procedures for monitoring security risk management system
- demonstrated ability to collate record of security incidents
- demonstrated ability to assess effectiveness of existing security risk management plan

Underpinning Knowledge

- familiarity with organisation's activities, systems etc. including future intentions
- broad process of security risk management
- sources of supply of security equipment, systems
- broad understanding of building facilities and services that apply to risk/threats being monitored eg electrical and air-conditioning systems
- legislation as it applies to security risk management
- responsibilities necessary to comply with applicable OH&S regulations
- basic statistical analysis and presentation of statistical data
- industry codes of practice

Underpinning Skills

- communication skills including negotiation skills, interviewing, written communication needed for compiling reports, summarising information
- collating numerical data
- problem solving
- research and analytical
- time management

Resources Required for Assessment

- Criterion referenced assessment instruments
- Relevant legislation
- Access to facility with a range of assets as listed in the range of variables
- Actual or fabricated terms of reference for a security risk management review
- Inventory of an organisation's assets, activities and functions

UNIT

PRSIR12A

Review security risk management plan

UNIT DESCRIPTOR

Covers an inspection or examination of an organisation's security risk management plan or individual measures on a cyclical or event driven basis

ELEMENTS AND PERFORMANCE CRITERIA**1 Establish review procedures**

- 1.1 Organisation's security risk management plan and individual measures contained in the plan are identified and confirmed as current as a basis for devising review
- 1.2 Procedures to develop an environment which encourages cooperation from all employees to assist with the review process are developed and implemented in collaboration with the client
- 1.3 Processes to be reviewed are allocated a priority in accordance with their significance to contributing to maintaining normal operations of the organisation, cost of monitoring and client's requirements
- 1.4 All measures incorporated in the plan are confirmed as implemented and functioning to required level by reference to results of monitoring procedures, incident report and all other available information

2 Test existing measures

- 2.1 Measures to be tested are identified and a priority allocated based on measures' significance and (in accordance with) terms of reference
- 2.2 Methods selected to test overall system and specific measures have minimal impact on organisation's normal operations and are in accordance with security risk management plan
- 2.3 Suppliers of services to the organisation are included in the review to assess their compliance with the organisation's security risk management plan
- 2.4 Potential impact of testing procedures is accurately gauged and warnings provided to appropriate people prior to tests
- 2.5 Testing program is within agreed timing, allocated resources and complies with OH&S regulations
- 2.6 Results of tests are assessed against criteria and documented in accordance with organisation procedures and plan
- 2.7 Client is immediately advised of any obvious deficiencies in security risk management procedures which could affect operational viability of the organisation in the short term

3 Evaluate results

- 3.1 Effectiveness of procedures is assessed against criteria and other measures included in plan
- 3.2 Collected information is subject to statistical analysis whenever sufficient reliable data is available
- 3.3 An assessment is made of need to retain existing measures based on their effectiveness in protecting assets and any actual or intended changes in the organisation's operating environment
- 3.4 Causes of deficiencies in measures are determined by an evaluation of test results and all other available information
- 3.5 Potential impact of any discrepancies is assessed and client immediately notified and agreed action implemented whenever the business operations of the organisation are at risk

4 Implement corrective measures

- 4.1 Strategies and resource implications for implementing corrective action are evaluated
- 4.2 Recommended action is implemented in accordance with client's requirements and after authority gained
- 4.3 Need for and timing of any further review of the organisation's security risk management system is determined in consultation with client

RANGE OF VARIABLES

Procedure may include: education and awareness programs; newsletters; posters; videos; competitions; talks etc. by senior management

Measures include: procedures; training and education; alarms; barriers; back-up systems; personnel vetting; controlled access; monitoring

Tests may include: penetration exercises; testing of alarms and other warning devices; controlled interruption to normal operations; simulation; rehearsals; inspection; interviews

Suppliers may include: cleaning; security; catering services

Criteria may include: response time; security awareness; serviceability of equipment including back-up systems; breaches of law; organisation's regulations etc during response; reporting of 'incident'; corruption of information eg. passwords; availability of on-call personnel

Statistical analysis may include: frequency analysis; departure from norm; average occurrence; trend analysis; run charts; histograms

UNIT

PR SIR12A

Review security risk management plan

Operating environment includes: organisation's role; size; structure; employee numbers; location; stability of neighbours; associates and competitors; operating procedures and practice; equipment; morale; executive staff and key appointments; communication systems; corporate competitive risk exposure

Assets include: people; equipment; facilities; systems; information; information systems and sources; reputation; goodwill; intellectual property; work processes/practices; business plans; output

Includes assets an organisation owns; leases or has custody

Action may include: repair; replacement; augmentation; duplication or redesign of existing procedures; systems and equipment; education and training; additional personnel

EVIDENCE GUIDE**Assessment Statement**

Assessment is the process of collecting evidence and making judgments on the extent and nature of progress towards the achievement of the performance standard outlined in this unit

Assessment against this unit of competency may involve any of the following techniques:

- Continuous assessment in an institutional setting that simulates the conditions of performance describe in the elements, performance criteria and range of variables statement that make up the unit
- Continuous assessment in the workplace, taking into account the range of variables affecting performance
- Self-assessment on the same terms as those described above
- Simulated assessment or critical incident assessment, provided that the critical incident involves assessment against performance criteria and an evaluation of underpinning knowledge and skill required to achieve the required performance outcomes

Guidance for Assessment

It is essential competence is demonstrated in assessing effectiveness of existing security risk management measures

The assessment should also include:

- knowledge of risk assessment techniques and processes
- understanding of the broad process of security risk management
- knowledge of strategies for developing cooperative environment (refer Performance Criteria 12.1, range of variables)
- knowledge of potential impact of testing procedures
- knowledge of operating environment of the organisation (refer range of variables)
- knowledge of procedures in place for monitoring security risk management system
- demonstrated ability to develop and implement testing program
- demonstrated ability to determine potential impact of any discrepancy in security risk management system

Underpinning Knowledge

- familiarity with organisation's activities, systems etc. including future intentions
- broad process of security risk management
- sources of supply of security equipment, systems
- broad understanding of building facilities and services that apply to risk/threats being reviewed eg electrical and air-conditioning systems
- legislation as it applies to security risk management
- industry codes of practice
- responsibilities necessary to comply with applicable OH&S regulations
- basic statistical analysis and presentation of statistical data

Underpinning Skills

- communication skills including negotiation skills, interviewing
- written communication needed for compiling reports, summarising information
- collating numerical data
- solving
- research and analytical
- time management

UNIT

PRSIR12A

Review security risk management plan

Resources Required for Assessment

- Criterion referenced assessment instruments
- Copies of relevant legislation
- Access to facility with a range of assets as listed in the range of variables
- Actual or artificial terms of reference for a security risk management review
- Actual or artificial security risk management plan
- Incident reports
- Results of the ongoing security risk management monitoring system