



# Department of Education and Training Information and Communications Technology (ICA05) Version 3

Purchasing Guide

**INFORMATION AND COMMUNICATION  
TECHNOLOGY  
TRAINING PACKAGE**

**ICA05**

**PURCHASING GUIDE**

**VERSION 3**

**Western Australian Department of Education and Training**

**June 2009**

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## Foreword

This Purchasing Guide has been generated to enable the stakeholders in the Information and Communication Technology in Western Australia to participate in the managed implementation of the National Information and Communication Technology Training Package ICA05 **Version 3**.

Information within this Guide should provide guidance on how competency standards may be selected and applied to achieve suitable outcomes and qualifications, for and within an industry.

Information and Communication Technology Training Package ICA05 **Version 3** was released onto the National Training Information Service (NTIS) on 3 March 2009.

## Introduction

This Guide provides information that will facilitate the implementation of the Information and Communication Technology Training Package ICA05 **Version 3** in Western Australia. This Guide is designed to aid Registered Training Organisations (RTOs) to convert from Training Package qualifications to revised Training Package qualifications within the scope of their training delivery.

The Guide should be read in conjunction with the **endorsed components** of the Information and Communication Technology Training Package ICA05 **Version 3**

The Guide provides information on:

- Transition arrangements
- Advice on Employability Skills
- Funding
- A mapping of current publicly funded qualifications to Training Package qualifications
- An allocation of nominal hours to units of competency and total hours for qualifications
- A set of appropriate sample, or model, training programs at each AQF level

## Obtaining the Training Package

The Information and Communication Technology Training Package ICA05 Training Package can be purchased from:

### **TVET Australia Product Services**

Level 21

390 St Kilda Road

Melbourne VIC 3000

Telephone: (03) 9832 8188

Facsimile: (03) 9832 8199

Email: [enquiries@tvetaustralia.com.au](mailto:enquiries@tvetaustralia.com.au)

Web: [www.tvetaustralia.com.au](http://www.tvetaustralia.com.au)

Information on National Training Packages is also available through the National Training Information Service (NTIS), which can be located on the Internet at:

[www.ntis.gov.au](http://www.ntis.gov.au)

**All RTOs who have Training Package qualifications on their Scope of Delivery must obtain a copy of the relevant Training Package.**

## **Transition Arrangements**

Registered Training Organisations (RTOs) are required to deliver Training Package qualifications within 12 months of the release date of the Training Package on to the National Training Information System (NTIS) by the National Quality Council (NQC). A current accredited course, however, may be used until its accreditation expires.

## **Transition to New Qualifications**

Students currently enrolled in a Training Package qualification in Information and Communication Technology Training Package ICA0 should be permitted to complete the program they enrolled in initially, unless the move to the related qualification from a Training Package can be made without disadvantage to a student.

## **Funding**

Some learners may only achieve a Statement of Attainment during their enrolment period with the RTO. Separate funding is not provided to assess the learner who has left his/her studies and then, at a later date, wants to complete an integrated assessment to achieve a certificate qualification. The RTO will be required to make special arrangements to issue the final qualification. This process may involve an invitation to the employer (if applicable) to participate in the assessment in the workplace.

## **Nominal Duration of Qualifications**

The maximum nominal hours are identified for each Training Package qualification. Nominal hours may vary within a qualification depending on the units of competency selected and the delivery strategies used; however, training delivery will not be funded beyond the maximum nominal hours indicated. Nominal hours are for structured training only and include both delivery and assessment.

## **Definition of nominal hours (supervised)**

Nominal hours are the hours of training nationally required to achieve the outcomes of the Unit of Competency. In Western Australia, nominal hours are used as a mechanism for funding allocation.

## Employability Skills

### *What are the employability skills?*

Employability skills are non-technical skills and competencies which have always been an important part of an individual's effective and successful participation in the workplace. Their explicit inclusion in Training Packages represents the progression of competency based training into a system which develops the full range of transferable skills, attitudes and behaviour required for successful participation in the workplace.

Employability skills have been developed from a business and industry need for a broader range of skills beyond the Mayer Key Competencies that were developed in 1992. The 2002 report, *Employability Skills for the Future*, published by the Business Council of Australia and the Australian Chamber of Commerce and Industry, outlined an 'Employability Skills Framework' which identifies eight employability skills. They are:

- **communication skills**, which contribute to productive and harmonious relations between employees and customers
- **teamwork skills**, which contribute to productive working relationships and outcomes
- **problem-solving skills**, which contribute to productive outcomes
- **initiative and enterprise skills**, which contribute to innovative outcomes
- **planning and organising skills**, which contribute to long-term and short-term strategic planning
- **self-management skills**, which contribute to employee satisfaction and growth
- **learning skills**, which contribute to ongoing improvement and expansion in employee and company operations and outcomes
- **technology skills**, which contribute to effective execution of tasks.

### *The Employability Skills Framework*

The Employability Skills Framework details the employability skills and the elements, or facets, of those skills that employers identified as important. Facets are examples of skills and behaviour which contribute to the overall application of each particular employability skill. The nature, emphasis and context of these facets vary across industries.



## ***Employability skills and Training Packages***

The National Quality Council endorsed the approach to explicitly embed the applicable employability skills into each individual unit of competency. In 2005 and 2006 specifically developed tools were used by Industry Skills Councils to review and embed employability skills into Training Package qualifications.

In many cases the skills and knowledge identified by the Employability Skills Framework already existed in Training Packages. Industry Skills Councils reviewed each Training Package and, where gaps existed or changes were required, modified the competency standards. For some Training Packages, the Framework was further modified to capture industry specific requirements. These requirements were then mapped to existing Training Packages and embedded and strengthened in units of competency.

Employability skills are said to be explicitly embedded when units of competency are written in a manner which makes the relationships between employability skills and the other performance requirements clear and readily identifiable.

### ***Employability skills summary***

Once the units of competency in a qualification have been mapped against the Framework, an Employability Skills Summary is created for every qualification in a Training Package. Summaries broadly identify the application of each employability skill in the context of the job role(s) covered by the qualification. They are designed to assist in identifying and including relevant industry applications of the employability skills into learning and assessment strategies.

### ***Reporting employability skills***

The National Quality Council Working Group on Employability Skills has agreed to a draft model for reporting employability skills. The draft model is yet to be presented to the National Quality Council for endorsement.

The Working Group recommends that:

- employability skills summaries will be available for downloading from a central internet repository (yet to be determined while NTIS 3 is under development)
- a brief statement with a URL to a user-friendly repository of employability skills summaries, from where the relevant summary can be downloaded to be printed on each qualification
- learners use the URL to download the relevant employability skills summary for their qualification
- RTOs will include generic text and the URL on all qualification testamurs.

## Version Modification History

The version details of this endorsed Training Package are in the table below. The latest information is at the top of the table.

Version	Release Date	Modification History
3.0	TBA	<p>Addition of new qualification:</p> <ul style="list-style-type: none"> <li>○ ICA60308 Advanced Diploma of Information Technology (E-security)</li> </ul> <p>Addition of new units for RFID and E-security:</p> <ul style="list-style-type: none"> <li>○ ICAA5245A</li> <li>○ ICAA5246A</li> <li>○ ICAB4247A</li> <li>○ ICAI4244A</li> <li>○ ICAI4251A</li> <li>○ ICAI4251A</li> <li>○ ICAI5250A</li> <li>○ ICAI5252A</li> <li>○ ICAI5253A</li> <li>○ ICAS2248A</li> <li>○ ICAS6254A</li> </ul> <p>Inclusion of RFID and E-security units in:</p> <ul style="list-style-type: none"> <li>○ ICA20105</li> <li>○ ICA40105</li> <li>○ ICA40405</li> <li>○ ICA50105</li> <li>○ ICZ50405</li> <li>○ ICA60105</li> <li>○ ICA60208 (replaces ICA60205)</li> </ul> <p>Deletion of core unit ICPPP411A in:</p> <ul style="list-style-type: none"> <li>○ ICA60208 (replaces ICA60205)</li> </ul> <p>Minor change to packaging of electives in:</p> <ul style="list-style-type: none"> <li>○ ICA40805, minor adjustments to some units and their titles</li> </ul> <p>Removal of non mandated co-requisites to meet "Training Package Development Handbook" requirements</p> <p>Update of ICA05 units for next generation networks and wireless broadband</p> <p>Replacement of heading "Prerequisites" in Individual Qualifications Summary for qualifications at Certificate III and above with the more appropriate title of "Entry Requirements"</p> <p>Imported competencies have been updated to the new version where there is a direct equivalent</p>
2.0	21/9/07	<p>Employability Skills mandatory text included in the introduction, qualification guidelines, assessment guidelines and each unit of competency</p> <p>Employability Skills Summary included in all qualifications</p>

		<p>Employability Skills mandatory statement inserted in all unit and Employability Skills explicitly expressed in all units – ‘maintain knowledge of industry products and services’ added to Toile Context in every unit</p> <p>Minor additions to the following units to enhance Employability Skills:</p> <ul style="list-style-type: none"> <li>○ ICAS3234B Care for computer hardware</li> <li>○ ICAU1128B Operate a personal computer</li> <li>○ ICAU2005B Operate computer hardware</li> <li>○ ICAU2006B Operate computing packages</li> <li>○ ICAU2013B Integrate commercial computing packages</li> <li>○ ICAU2231B Use computer operating system</li> </ul> <p>Category 1 changes made to correct typos, unit titles, minor formatting errors and clarification to prerequisite requirements for entry to qualifications</p>
1.0	November 2005	ICA05 replaces the predecessor package ICA99 Information Technology Training Package (version 3.0)

## Qualifications and Nominal Hours

The following table provides a summary of the qualifications and nominal hours in the Information and Communication Technology Training Package ICA05 **Version 3**

<b>National ID</b>	<b>Training Package Qualification Title</b>	<b>Maximum Nominal Hours</b>
ICA60208	Advanced Diploma of Information Technology (Network Security)	555
ICA60308	Advanced Diploma of Information Technology (E-security)	540

## Units of Competency and Nominal Hours

The following table provides a summary of the units of competency and nominal hours in the industry Information and Communications Technology Training Package

National ID	Training Package Unit Title	Max Nominal Hours
ICAA4041C	Determine and confirm client business expectations and needs	35
ICAA4142C	Design a website to meet technical requirements	40
ICAA5035C	Research and review hardware technology options for organisations	20
ICAA5044C	Develop system infrastructure design plan	35
ICAA5045C	Produce network architecture design	25
ICAA5054C	Validate quality and completeness of system design specifications	20
ICAA5140C	Design a server	20
ICAA5141C	Design and develop dynamic websites to meet technical requirements	30
ICAA5143C	Implement process re-engineering strategies in an organisation	20
ICAA5150C	Evaluate vendor products and equipment	20
ICAA5241C	Design an enterprise wireless local area network	25
ICAA5245A	Evaluate RFID systems	45
ICAA5246A	Design an RFID implementation	45
ICAB4239C	Build a small wireless local area network	20
ICAB4240C	Build an enterprise wireless network	20
ICAB4247A	Link an RFID system to a database	25
ICAB5159C	Build a security shield for a network	40
ICAB5160C	Build and configure a server	55
ICAB5180C	Integrate database with a website	25
ICAI3110C	Implement system software changes	15
ICAI4029C	Install network hardware to a network	40
ICAI4097C	Install and configure a network	45
ICAI4175C	Select and install a router	15
ICAI4244A	Install and maintain an RFID system	35
ICAI4249A	Implement and evaluate data security	15
ICAI4251A	Implement and evaluate network and telecommunication security	35
ICAI5098C	Install and manage complex networks	55
ICAI5100C	Build an internet infrastructure	50
ICAI5176C	Install and configure router	20
ICAI5250A	Develop, implement and evaluate system and application security	55
ICAI5252A	Develop, implement and evaluate an incident response plan	25
ICAI5253A	Implement and evaluate systems for regulatory and standards compliance	15
ICAS2248A	Protect and secure information assets	15
ICAS3120C	Configure and administer a network operating system	40
	Identify and resolve common database performance	

National ID	Training Package Unit Title	Max Nominal Hours
ICAS4113C	problems	25
ICAS4134C	Provide first-level remote help desk support	35
ICAS5118C	Manage system security	45
ICAS5122C	Identify and resolve network problems	30
ICAS5123C	Manage network security	45
ICAS6254A	Manage IT security	70

## Qualifications which replace qualifications from the Information and Communication Technology Training Package ICA05 Version 2

The following table provides an overview of the qualifications from the Information and Communications Technology ICA05 **Version 3** which replace the qualifications in the Information and Communication Technology ICA05 Version 1.

Information and Communication Technology Training Package ICA05 Version 1			Information & Communication Technology Training Package ICA05 Version 3		
National ID	Qualification Title	Hrs	National ID	Qualification Title	Hrs
ICA60205	Advanced Diploma of Information Technology (Network Security)	555	ICA60208	Advanced Diploma of Information Technology (Network Security)	555
	No previous equivalent		ICA60308	Advanced Diploma of Information Technology (E-security)	540

## Existing units of competency which are replaced by units of competency from the reviewed Information and Communication Technology ICA05 Version 3

The following table provides an overview of the units of competency from the Information and Communication Technology ICA05 Version 1 and 2 which are replaced by the units of competency from the Information and Communication Technology ICA05 **Version 3**.

National ID	ICA05 Version 1 and 2		National ID	ICA05 Version 3	
	Current Unit Title	Hours		Replacement Units Title	Hours
ICAA4041B	Determine and confirm client business expectations and needs	35	ICAA4041C	Determine and confirm client business expectations and needs	35
ICAA4142B	Design a website to meet technical requirements	40	ICAA4142C	Design a website to meet technical requirements	40
ICAA5035B	Research and review hardware technology options for organisations	20	ICAA5035C	Research and review hardware technology options for organisations	20
ICAA5044B	Develop system infrastructure design plan	35	ICAA5044C	Develop system infrastructure design plan	35
ICAA5045B	Produce network architecture design	25	ICAA5045C	Produce network architecture design	25
ICAA5054B	Validate quality and completeness of system design specifications	20	ICAA5054C	Validate quality and completeness of system design specifications	20
ICAA5140B	Design a server	20	ICAA5140C	Design a server	20
ICAA5141B	Design and develop dynamic websites to meet technical requirements	30	ICAA5141C	Design and develop dynamic websites to meet technical requirements	30
ICAA5143B	Implement process re-engineering strategies in an organisation	20	ICAA5143C	Implement process re-engineering strategies in an organisation	20
ICAA5150B	Evaluate vendor products and equipment	20	ICAA5150C	Evaluate vendor products and equipment	20
ICAA5241B	Design an enterprise wireless local area network	25	ICAA5241C	Design an enterprise wireless local area network	25
	No previous equivalent		ICAA5245A	Evaluate RFID systems	45
	No previous equivalent		ICAA5246A	Design an RFID implementation	45
ICAB4239B	Build a small wireless local area network	20	ICAB4239C	Build a small wireless local area network	20
ICAB4240B	Build an enterprise wireless network	20	ICAB4240C	Build an enterprise wireless network	20
	No previous equivalent		ICAB4247A	Link an RFID system to a database	25
ICAB5159B	Build a security shield for a network	40	ICAB5159C	Build a security shield for a network	40



ICA05 Version 1 and 2			ICA05 Version 3		
National ID	Current Unit Title	Hours	National ID	Replacement Units Title	Hours
ICAB5160B	Build and configure a server	55	ICAB5160C	Build and configure a server	55
ICAB5180B	Integrate database with a website	25	ICAB5180C	Integrate database with a website	25
ICAI3110B	Implement system software changes	15	ICAI3110C	Implement system software changes	15
ICAI4029B	Install network hardware to a network	40	ICAI4029C	Install network hardware to a network	40
ICAI4097B	Install and configure a network	45	ICAI4097C	Install and configure a network	45
ICAI4175B	Select and install a router	15	ICAI4175C	Select and install a router	15
	No previous equivalent	35	ICAI4244A	Install and maintain an RFID system	35
	No previous equivalent	15	ICAI4249A	Implement and evaluate data security	15
	No previous equivalent	35	ICAI4251A	Implement and evaluate network and telecommunication security	35
ICAI5098B	Install and manage complex networks	55	ICAI5098C	Install and manage complex networks	55
ICAI5100B	Build an internet infrastructure	50	ICAI5100C	Build an internet infrastructure	50
ICAI5176B	Install and configure router	20	ICAI5176C	Install and configure router	20
	No previous equivalent		ICAI5250A	Develop, implement and evaluate system and application security	55
	No previous equivalent		ICAI5252A	Develop, implement and evaluate an incident response plan	25
	No previous equivalent		ICAI5253A	Implement and evaluate systems for regulatory and standards compliance	15
	No previous equivalent		ICAS2248A	Protect and secure information assets	15
ICAS3120B	Configure and administer a network operating system	40	ICAS3120C	Configure and administer a network operating system	40
ICAS4113B	Identify and resolve common database performance problems	25	ICAS4113C	Identify and resolve common database performance problems	25
ICAS4134B	Provide first-level remote help desk support	35	ICAS4134C	Provide first-level remote help desk support	35
ICAS5118B	Manage system security	45	ICAS5118C	Manage system security	45
ICAS5122B	Identify and resolve network problems	30	ICAS5122C	Identify and resolve network problems	30
ICAS5123B	Manage network security	45	ICAS5123C	Manage network security	45
	No previous equivalent		ICAS6254A	Manage IT security	70

## Examples of Training Package Programs

Units of competency may be customised so that the tasks involved in demonstrating competence are designed to meet the requirements of an individual enterprise or to satisfy regulations in a particular state or territory.

Each qualification in the Information and Communications Technology Training Package ICA05 Version 3 may be customised to meet the context in which the training is taking place. A qualification can also be customised to accommodate a learner's chosen career pathway.

The following are examples of suitable training programs for Information and Communications Technology Training Package ICA05 **Version 3**. The models are not intended to be prescriptive but illustrate ways that qualifications can be achieved.

## ICA60208 – Advanced Diploma of Information Technology (Network Security)

<b>Qualification Title</b>	Advanced Diploma of Information Technology (Network Security)
<b>Qualification Code</b>	ICA60208
<b>Qualification Packaging Rules</b>	<p><b>ENTRY REQUIREMENTS</b></p> <p>The following units contain basic fundamentals of ICT knowledge and skills for all qualifications at Certificate III in IT and above. These units or demonstrated equivalence are required for entry into this qualification:</p> <ul style="list-style-type: none"> <li>○ BSBCMN106A</li> <li>○ ICAD2012B</li> <li>○ ICAU1128B</li> <li>○ ICAU2005B</li> <li>○ ICAU2006B</li> <li>○ ICAU2013B</li> <li>○ ICAU2231B</li> <li>○ ICAW2001B</li> <li>○ ICAW2002B</li> </ul> <p><b>PACKAGING RULES</b></p> <p>To attain the ICA60208 qualification, 17 units must be achieved: 8 core units plus 9 elective units</p> <p><i>Note: The 9 electives to be chosen must not have been previously counted in the Diploma qualification</i></p>

The following table outlines ONE example of a training program for this qualification. Please refer to the Training Package for the full details of available options.

<b>EXAMPLE PROGRAM</b>		
<b>Unit Code</b>	<b>Unit Title</b>	<b>Nominal Hours</b>
<b>Core Units</b>		
BSBEBUS605A	Identify and implement e-business innovation	50
ICAA5044C	Develop system infrastructure design plan	35
ICAA6052B	Design an IT security framework	25
ICAA6053B	Design system security and controls	30
ICAI5152B	Implement risk management processes	20
PRSSM504A	Prepare security risk management plan	40
PRSTS301A	Identify technical security requirements	10
PSPPM601B	Direct complex project activities	40
<b>Elective Units</b>		
ICAA5045C	Produce network architecture design	25
ICAA5056B	Prepare disaster recovery and contingency plans	30
ICAA5141C	Design dynamic websites to meet technical requirements	30
ICAA5145B	Identify best fit topology for a wide area network	20
ICAB5159C	Build a security shield for a network	40
ICAB5160C	Build and configure a server	55
ICAB5237B	Build a high performance security perimeter	25
ICAB5238B	Build a highly secure firewall	25
ICAI5098C	Install and manage complex networks	55
<b>TOTAL</b>		<b>555</b>

## ICA60308 – Advanced Diploma of Information Technology (E-Security)

<b>Qualification Title</b>	Advanced Diploma of Information Technology (E-Security)
<b>Qualification Code</b>	ICA60308
<b>Qualification Packaging Rules</b>	To attain the ICA60308 qualification, 17 units must be achieved: 12 core units plus 5 elective units  <i>Note: The 5 electives to be chosen must not have been previously counted in the Diploma qualification</i>

The following table outlines ONE example of a training program for this qualification. Please refer to the Training Package for the full details of available options.

<b>EXAMPLE PROGRAM</b>		
<b>Unit Code</b>	<b>Unit Title</b>	<b>Nominal Hours</b>
<b>Core Units</b>		
ICAA5056B	Prepare disaster recovery and contingency plans	30
ICAA6052B	Design an IT security framework	25
ICAA6053B	Design system security and controls	30
ICAB5159B	Build a security shield for a network	40
ICAB5237B	Build a high performance security perimeter	25
ICAB5238B	Build a highly secure firewall	25
ICAI5152B	Implement risk management processes	20
ICAI5252A	Develop, implement and evaluate an incident response plan	25
ICAI5250A	Develop, implement and evaluate system and application security	55
ICAS5192B	Configure an internet gateway	20
ICAS6254A	Manage IT security	70
PSPPM601B	Direct complex projects activities	40
<b>Elective Units</b>		
ICAA5044C	Develop system infrastructure design plan	35
ICAD5092B	Update and document operational procedures	25
ICAI5098C	Install and manage complex networks	55
ICAI5197B	Install and maintain valid authentication processes	25
ICAI5253A	Implement and evaluate systems for regulatory and standards compliance	15
<b>TOTAL</b>		<b>540</b>