



**Australian Government**

# **ICT40115 Certificate IV in Information Technology**

**Release 1**

# ICT40115 Certificate IV in Information Technology

## Modification History

Release	Comments
Release 1	This qualification first released with ICT Information and Communications Technology Training Package Version 1.0.

## Qualification Description

This qualification provides the skills and knowledge for an individual to be competent in a wide range of general information and communications technology (ICT) technologies and to support small to medium enterprises (SMEs) that require broader rather than more specialised ICT support.

Persons working at this level apply a wide range of knowledge and skills in basic networking, ICT support, database development, programming and web development support; working safely and ethically in a sustainable work environment.

## Licensing/Regulatory Information

No licensing, legislative or certification requirements apply to this qualification at the time of publication.

## Entry Requirements

Nil

## Packaging Rules

**Total number of units = 20**

**5 core units** plus

**15 elective units**

The elective units consist of:

- up to 15 from the specialist elective groups below, with a maximum of 5 units from any one group:
  - Group A Networking
  - Group B Programming
  - Group C IT support
  - Group D Web design and development
  - Group E Digital games
  - Group F Digital media technologies
  - Group G Project management
- up to 5 from elsewhere in ICT Information and Communications Technology Training Package or any other Training Package or accredited course at Certificate IV or Diploma level.

The elective units chosen must be relevant to the work outcome and meet local industry needs.

### Core units

BSBWHS304 Participate effectively in WHS communication and consultation processes

BSBSUS301 Implement and monitor environmentally sustainable work practices

ICTICT202 Work and communicate effectively in an ICT environment

ICTICT401 Determine and confirm client business requirements

ICTICT418 Contribute to copyright, ethics and privacy in an ICT environment

### Elective units

#### Specialist elective units

##### *Group A Networking*

ICTICT423 Select cloud storage strategies

ICTNWK401 Install and manage a server

ICTNWK402 Install and configure virtual machines for sustainable ICT

ICTNWK403 Manage network and data integrity

ICTNWK404 Install, operate and troubleshoot a small enterprise branch network

ICTNWK405 Build a small wireless local area network

ICTNWK406 Install, configure and test network security

ICTNWK407 Install and configure client-server applications and services

ICTNWK408 Configure a desktop environment

ICTNWK409 Create scripts for networking  
ICTNWK410 Install hardware to a network  
ICTNWK411 Deploy software to networked computers  
ICTNWK412 Create network documentation  
ICTNWK414 Create a common gateway interface script  
ICTNWK416 Build security into virtual private networks  
ICTNWK417 Build an enterprise wireless network  
ICTNWK418 Implement backbone technologies in a local area network  
ICTNWK419 Identify and use current virtualisation technologies  
ICTSAS307 Install, configure and secure a small office or home office network

### ***Group B Programming***

ICTICT410 Conduct post-implementation ICT system reviews  
ICTICT420 Develop client user interface  
ICTPRG401 Maintain open-source code programs  
ICTPRG402 Apply query language  
ICTPRG403 Develop data-driven applications  
ICTPRG404 Test applications  
ICTPRG405 Automate processes  
ICTPRG406 Apply introductory object-oriented language skills  
ICTPRG407 Write script for software applications  
ICTPRG409 Develop mobile applications  
ICTPRG410 Build a user interface  
ICTPRG412 Configure and maintain databases  
ICTPRG413 Use a library or pre-existing components  
ICTPRG414 Apply introductory programming skills in another language  
ICTPRG415 Apply skills in object-oriented design  
ICTPRG416 Manage a software component reuse library  
ICTPRG417 Apply mathematical techniques for software development  
ICTPRG418 Apply intermediate programming skills in another language  
ICTPRG419 Analyse software requirements  
ICTPRG425 Use structured query language  
ICTPRG426 Prepare software development review  
ICTPRG427 Use XML effectively  
ICTPRG428 Use regular expressions in programming languages

### ***Group C ICT support***

ICTDBS403 Create basic databases  
ICTDBS407 Monitor physical database implementation  
ICTDBS408 Link an RFID system to a database  
ICTDBS503 Create a data warehouse  
ICTICT402 Determine project specifications and secure client agreement  
ICTICT403 Apply software development methodologies  
ICTICT404 Use online learning tools  
ICTICT405 Develop detailed technical design  
ICTICT406 Build a graphical user interface

ICTICT408 Create technical documentation  
ICTICT411 Select and employ software and hardware testing tools  
ICTICT412 Coordinate and maintain ICT work teams  
ICTICT413 Relate to clients on a business level  
ICTICT415 Provide one-to-one instruction  
ICTICT416 Contribute to the development of strategic plans  
ICTICT417 Identify, evaluate and apply current industry specific technologies to meet industry standards  
ICTSAD401 Develop and present feasibility reports  
ICTSAS402 Implement configuration management strategies  
ICTSAS403 Review site environmental factors prior to ICT system implementation  
ICTSAS404 Acquire ICT system components  
ICTSAS405 Identify and evaluate ICT industry vendor technologies  
ICTSAS407 Conduct pre-installation audit for software installation  
ICTSAS408 Complete data transition in data migration process  
ICTSAS409 Manage risks involving ICT systems and technology  
ICTSAS410 Identify and resolve client ICT problems  
ICTSAS411 Assist with policy development for client support procedures  
ICTSAS412 Action change requests  
ICTSAS413 Manage resolution of system faults on a live system  
ICTSAS414 Evaluate system status  
ICTSAS415 Optimise ICT system performance  
ICTSAS416 Implement maintenance procedures  
ICTSAS417 Undertake ICT system capacity planning  
ICTSAS418 Monitor and administer security of an ICT system  
ICTSAS419 Support system software  
ICTSAS420 Provide first-level remote help-desk support  
ICTSAS421 Support users and troubleshoot desktop applications  
ICTSAS424 Support different operating systems

### ***Group D Web design and development***

ICTICT407 Maintain website information standards  
ICTWEB401 Design a website to meet technical requirements  
ICTWEB402 Confirm accessibility of websites for people with special needs  
ICTWEB403 Transfer content to a website using commercial packages  
ICTWEB404 Maintain website performance  
ICTWEB405 Monitor traffic and compile website traffic reports  
ICTWEB406 Create website testing procedures  
ICTWEB407 Conduct operational acceptance tests of websites  
ICTWEB408 Ensure basic website security  
ICTWEB409 Develop cascading style sheets  
ICTWEB410 Apply web authoring tool to convert client data for websites  
ICTWEB411 Produce basic client-side script for dynamic web pages  
ICTWEB412 Produce interactive web animation  
ICTWEB413 Optimise search engines  
ICTWEB414 Design simple web page layouts  
ICTWEB415 Produce server-side script for dynamic web pages

ICTWEB416 Customise content management system  
ICTWEB417 Integrate social web technologies  
ICTWEB418 Use development software and ICT tools to build a basic website  
ICTWEB419 Develop guidelines for uploading information to a website  
ICTWEB420 Write content for web pages  
ICTWEB421 Ensure website content meets technical protocols and standards  
ICTWEB422 Ensure website access and useability  
ICTWEB423 Ensure dynamic website security  
ICTWEB424 Evaluate and select a web hosting service  
ICTWEB425 Apply structured query language to extract and manipulate data  
ICTWEB429 Create a markup language document to specification

### ***Group E Digital games***

ICTGAM401 Produce an interactive game  
ICTGAM402 Identify and apply principles of games design and game playing  
ICTGAM403 Create design documents for interactive games  
ICTGAM405 Write story and content for digital games  
ICTGAM406 Create visual design components for interactive games  
ICTGAM407 Write scripts for interactive games  
ICTGAM408 Use 3-D animation interface and toolsets  
ICTGAM409 Create 3-D characters for interactive games  
ICTGAM410 Develop 3-D components for interactive games  
ICTGAM412 Design interactive media  
ICTGAM413 Design and create 3-D digital models  
ICTGAM414 Create audio for digital games  
ICTGAM415 Develop simple environments for 3-D games  
ICTGAM416 Prepare and complete image rendering processes  
ICTGAM417 Apply digital effects to interactive products  
ICTICT419 Work effectively in the digital media industry

### ***Group F Digital media technologies***

BSBCRT401 Articulate, present and debate ideas  
CUFANM301A Create 2D digital animations  
CUFANM302A Create 3D digital animations  
CUFANM402A Create digital visual effects  
CUFDIG401A Author interactive media  
CUFPPM404A Create storyboards  
CUFSOU204A Perform basic sound editing  
CUFSOU301A Prepare audio assets  
ICTDMT401 Create visual design components for digital media  
ICTDMT402 Produce interactive animation  
ICTDMT403 Produce and edit digital images

### ***Group G Project management***

ICTPMG401 Support small scale ICT projects

## Qualification Mapping Information

<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
ICT40115 Certificate IV in Information Technology	ICA40111 Certificate IV in Information Technology	Updated to meet Standards for Training Packages	Equivalent qualification

## Links

Companion volumes available from the IBSA website:

[http://www.ibsa.org.au/companion\\_volumes](http://www.ibsa.org.au/companion_volumes) - [http://www.ibsa.org.au/companion\\_volumes](http://www.ibsa.org.au/companion_volumes)