



**Australian Government**

# **ICT40118 Certificate IV in Information Technology**

**Release 1**

# ICT40118 Certificate IV in Information Technology

## Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package version 4.0.

## 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 practices in different organisational contexts.

Persons working at this level apply a wide range of knowledge and skills in basic networking, ICT support, testing, systems analysis and design, database development, programming and web development support.

### 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 must be relevant to the work environment and the qualification, maintain the integrity of the AQF alignment, and contribute to a valid industry-supported vocational outcome, and are to be chosen as follows:

- At least 10 units chosen from the elective units listed below
- Up to 5 units chosen from a Certificate III, Certificate IV or Diploma in any currently endorsed training package or accredited course, provided they do not duplicate the outcome of another unit chosen for the qualification.

Any combination of elective units that meets the rules above can be selected for the award of the *Certificate IV in Information Technology*. Where appropriate, elective units may be packaged to provide a qualification with a specialisation.

Packaging for each specialisation:

All Group A units must be selected for award of the *Certificate IV in Information Technology (Systems analysis and design)*.

All Group B units plus at least 5 Group C units must be selected for award of the *Certificate IV in Information Technology (Testing)*.

#### Core units

ICTICT401 Determine and confirm client business requirements

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

ICTICT424 Address cyber security requirements

ICTICT425 Implement WHS, environmental sustainability and anti-discrimination practices in an ICT workplace

ICTICT426 Identify and evaluate emerging technologies and practices

#### Elective units

Group A electives – SYSTEMS ANALYSIS AND DESIGN specialisation

ICTDBS413 Determine database requirements

ICTDBS415 Build a database

ICTICT403 Apply software development methodologies

ICTICT405 Develop detailed technical design

ICTPRG405 Automate processes

ICTSAD401 Develop and present feasibility reports

ICTTEN410 Locate, diagnose and rectify faults

Group B electives – TESTING specialisation

ICTICT408 Create technical documentation

**ICTICT411 Select and employ software and hardware testing tools**

ICTPMG401 Support small scale ICT projects

ICTPRG405 Automate processes

ICTSAS308 Run standard diagnostic tests

Group C electives

ICTNWK536 Plan, implement and test enterprise communication solutions

ICTSAS504 Develop and conduct client acceptance test

ICTSAS519 Perform systems tests

ICTSAS520 Develop detailed test plans  
ICTSAS521 Perform integration tests  
ICTSAS522 Manage the testing process  
ICTSAS523 Perform stress and load tests on integrated platforms  
ICTTEN416 Install, configure and test an internet protocol network

Other electives

***Database/Software Support***

ICTSAS402 Implement configuration management strategies  
ICTSAS403 Review site environmental factors prior to ICT system implementation  
ICTSAS404 Acquire ICT system components  
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

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

#### Digital media technologies

BSBCRT401 Articulate, present and debate ideas  
CUAANM301 Create 2D digital animations  
CUAANM302 Create 3D digital animations  
CUAANM402 Create digital visual effects  
CUADIG401 Author interactive media  
CUAPPM407 Create storyboards  
CUASOU202 Perform basic sound editing  
CUASOU304 Prepare audio assets  
ICTDMT401 Create visual design components for digital media  
ICTDMT402 Produce interactive animation  
ICTDMT403 Produce and edit digital images

#### IT (end user/technical) support

ICTDBS403 Create basic databases  
ICTDBS407 Monitor physical database implementation  
ICTDBS408 Link an RFID system to a database  
ICTDBS414 Complete database backup and restore  
ICTDBS503 Create a data warehouse  
ICTICT402 Determine project specifications and secure client agreement  
ICTICT404 Use online learning tools  
ICTICT406 Build a graphical user interface  
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  
ICTICT427 Identify, evaluate and apply current industry-specific technologies to meet organisational needs

#### Networking

ICTICT428 Select cloud storage solutions

ICTNWK401 Install and manage a server  
ICTNWK403 Manage network and data integrity  
ICTNWK404 Install, operate and troubleshoot a small enterprise branch network  
ICTNWK405 Build a small wireless local area network  
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  
ICTNWK420 Install and configure virtual machines  
ICTNWK421 Install, configure and test network security  
ICTSAS307 Install, configure and secure a small office or home office network

### 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  
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 re-use library  
ICTPRG417 Apply mathematical techniques for software development  
ICTPRG418 Apply intermediate programming skills in another language  
ICTPRG419 Analyse software requirements  
ICTPRG426 Prepare software development review  
ICTPRG427 Use XML effectively

ICTPRG428 Use regular expressions in programming languages

ICTPRG430 Apply introductory object-oriented language skills

#### 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

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

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

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

ICTWEB430 Produce server-side script for dynamic web pages

ICTWEB431 Create and style simple markup language documents

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICT40118 Certificate IV in Information Technology	ICT40115 Certificate IV in Information Technology ICT40615 Certificate	Qualification supersedes ICT40115, ICT40615 and ICT40715. Core units	Not equivalent

(Release 1)	IV in Information Technology Testing ICT40715 Certificate IV in Systems Analysis and Design (Release 2)	changed. Packaging rules changed including the addition of bracketed specialisations.	
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## Links

Companion Volume Implementation Guides are available from VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>