



Australian Government

ICT50118 Diploma of Information Technology

Release 1

ICT50118 Diploma of 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 administer and manage information and communications technology (ICT) support in small-to-medium enterprises (SMEs) using a wide range of general ICT technologies.

Persons working at this level provide a broader rather than specialised ICT support function, applying a wide range of higher level technical skills in ICT areas such as networking, IT support, database development, programming and web development.

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

4 core units *plus*

16 elective units

The elective units consist of:

- up to 16 units 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 Diploma or Advanced Diploma level.

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

Core units

BSBSUS501 Develop workplace policy and procedures for sustainability
BSBWHS501 Ensure a safe workplace
ICTICT509 Gather data to identify business requirements
ICTICT517 Match ICT needs with the strategic direction of the organisation

Elective units

Specialist elective units

Group A Networking

ICTNWK502 Implement secure encryption technologies
ICTNWK503 Install and maintain valid authentication processes
ICTNWK504 Design and implement an integrated server solution
ICTNWK505 Design, build and test a network server
ICTNWK506 Configure, verify and troubleshoot WAN links and IP services in a medium enterprise network
ICTNWK507 Install, operate and troubleshoot medium enterprise routers
ICTNWK508 Install, operate and troubleshoot medium enterprise switches
ICTNWK509 Design and implement a security perimeter for ICT networks
ICTNWK510 Develop, implement and evaluate system and application security
ICTNWK511 Manage network security
ICTNWK513 Manage system security
ICTNWK514 Model preferred system solutions
ICTNWK515 Develop configuration management protocols
ICTNWK516 Determine best-fit topology for a local network
ICTNWK517 Determine best-fit topology for a wide area network
ICTNWK518 Design an enterprise wireless local area network

ICTNWK519 Design an ICT security framework
ICTNWK520 Design ICT system security controls
ICTNWK521 Install, configure and test a payment gateway
ICTNWK522 Build decks using wireless markup language
ICTNWK524 Install and configure network access storage devices
ICTNWK525 Configure an enterprise virtual computing environment
ICTNWK527 Manage an enterprise virtual computing environment
ICTNWK529 Install and manage complex ICT networks
ICTNWK531 Configure an internet gateway
ICTNWK532 Identify and resolve network problems
ICTNWK533 Configure and manage advanced virtual computing environments
ICTNWK534 Monitor and troubleshoot virtual computing environments
ICTNWK535 Install an enterprise virtual computing environment
ICTNWK536 Plan, implement and test enterprise communication solutions
ICTNWK614 Manage ICT security
ICTNWK615 Design and configure desktop virtualisation

Group B Programming

ICTPRG502 Manage a project using software management tools
ICTPRG503 Debug and monitor applications
ICTPRG504 Deploy an application to a production environment
ICTPRG505 Build advanced user interface
ICTPRG506 Design application architecture
ICTPRG507 Implement security for applications
ICTPRG508 Create mashups
ICTPRG509 Build using rapid application development
ICTPRG510 Maintain custom software
ICTPRG511 Monitor and support data conversion to new ICT system
ICTPRG512 Prepare for the build phase of an ICT system
ICTPRG513 Coordinate the build phase of an ICT system
ICTPRG515 Review developed software
ICTPRG516 Develop integration blueprint for ICT systems
ICTPRG517 Install, test and evaluate pilot version of ICT system
ICTPRG518 Monitor the system pilot
ICTPRG523 Apply advanced programming skills in another language
ICTPRG524 Develop high-level object-oriented class specifications
ICTPRG525 Build Java applets
ICTPRG526 Maintain functionality of legacy code programs
ICTPRG527 Apply intermediate object-oriented language skills

ICTPRG528 Perform ICT data conversion
ICTPRG531 Prepare for application development using current methods
ICTPRG532 Apply advanced object-oriented language skills
ICTPRG601 Develop advanced mobile multi-touch applications
ICTSAD501 Model data objects
ICTSAD502 Model data processes
ICTSAD503 Minimise risk of new technologies to business solutions

Group C IT Support

ICTICT501 Research and review hardware technology options for organisations
ICTICT502 Develop detailed component specifications from project specifications
ICTICT503 Validate quality and completeness of system design specifications
ICTICT504 Confirm transition strategy for a new system
ICTICT506 Implement process re-engineering strategies
ICTICT507 Select new technology models for business
ICTICT510 Determine appropriate ICT strategies and solutions
ICTICT512 Plan process re-engineering strategies for business
ICTICT514 Identify and manage the implementation of current industry specific technologies
ICTICT515 Verify client business requirements
ICTSAD506 Produce a feasibility report
ICTSAS501 Develop, implement and evaluate an incident response plan
ICTSAS502 Establish and maintain client user liaison
ICTSAS504 Develop and conduct client acceptance test
ICTSAS505 Review and update disaster recovery and contingency plans
ICTSAS506 Update ICT system operational procedures
ICTSAS507 Implement and evaluate systems for regulatory and standards compliance
ICTSAS509 Provide client ICT support services
ICTSAS510 Review and develop ICT maintenance strategy
ICTSAS511 Prioritise ICT change requests
ICTSAS512 Review and manage delivery of maintenance services
ICTSAS517 Use network tools
ICTSAS518 Install and upgrade operating systems
ICTSAS519 Perform systems tests
ICTSAS520 Develop detailed test plans
ICTSAS522 Manage the testing process

Group D Web design and development

ICTWEB411 Produce basic client-side script for dynamic web pages

ICTWEB429 Create a markup language document to specification
ICTWEB501 Build a dynamic website
ICTWEB502 Create dynamic web pages
ICTWEB503 Create web-based programs
ICTWEB504 Build a document using eXtensible markup language
ICTWEB505 Develop complex web page layouts
ICTWEB506 Develop complex cascading style sheets
ICTWEB507 Customise a complex ICT content management system
ICTWEB508 Develop website information architecture
ICTWEB509 Use site server tools for transaction management
ICTWEB510 Analyse information and assign meta tags
ICTWEB511 Implement quality assurance process for websites
ICTWEB512 Administer business websites and servers
ICTWEB515 Implement and use web services
ICTWEB516 Research and apply emerging web technology trends

Group E Digital games

ICTGAM501 Create design concepts for digital games and 3-D media
ICTGAM503 Create a complex 3-D interactive computer game
ICTGAM504 Manage interactive media production
ICTGAM506 Create complex code for mobile game devices
ICTGAM507 Develop intermediate 3-D software for games and interactive media
ICTGAM508 Develop complex 3-D software for games and interactive media
ICTGAM509 Design interactive 3-D applications for scientific and mathematical modelling
ICTGAM510 Prepare games for different platforms and delivery modes
ICTGAM511 Manage testing of games and interactive media
ICTGAM512 Create and implement designs for a 3-D games environment
ICTGAM514 Design and create models for a 3-D and digital effects environment
ICTGAM515 Design and create advanced particles, fluids and bodies for 3-D digital effects
ICTGAM516 Animate a 3-D character for digital games
ICTGAM517 Produce a digital animation sequence
ICTGAM518 Animate physical attributes of models and elements
ICTGAM519 Manage technical art and rigging in 3-D animation
ICTGAM520 Create and combine 3-D digital games and components
ICTGAM521 Create interactive 3-D environments for digital games
ICTGAM522 Complete digital editing for the 3-D and digital effects environment
ICTGAM523 Collaborate in the design of 3-D game levels and environments
ICTGAM524 Integrate multiple data sources into interactive 3-D environments
ICTGAM525 Apply digital texturing for the 3-D environment in digital games

ICTGAM526 Create complex 3-D characters for games

ICTGAM527 Integrate database with online game

ICTGAM529 Analyse business opportunities in the digital games environment

Group F Digital media technologies

BSBCRT501 Originate and develop concepts

CUADIG502 Design digital applications

CUADIG503 Design e-learning resources

CUADIG507 Design digital simulations

CUAPHI504 Employ specialised imaging technologies

CUAPOS201 Perform basic vision and sound editing

CUAPOS401 Edit screen content for fast turnaround

CUASOU307 Record and mix a basic music demo

CUASOU504 Produce sound recordings

ICTDMT501 Incorporate and edit digital video

ICTICT406 Build a graphical user interface

ICTICT419 Work effectively in the digital media industry

Group G Project management

ICTPMG501 Manage ICT projects

Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICT50118 Diploma of Information Technology (Release 1)	ICT50115 Diploma of Information Technology (Release 2)	Updated due to changes to core units of competency	Equivalent qualification

Links

Companion Volume Implementation Guides are available from VETNet -

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