Companion Volume Implementation Guide

ICT Information and Communications Technology Training Package Companion Volume Implementation Guide

(Version 9.0)

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Overview information

Version control and modification history.

Version Number	Release date	Comments
Version 9.0	October 2024	**Telecommunications Technology Training Products updated:** Major change adding additional units to Elective Stream *Group J Telecommunications Rigging* Qualification updated: • ICT30519 Certificate III in Telecommunications Technology. Minor change updating outdated reference. Unit of Competency updated: 1 • ICTCBL247 Install, maintain, and modify customer premises communications cabling
Version 8.1	June 2022	Minor changes as an SSO upgrade: The following elective unit of competency has been deleted as directed by the AISC. • ICTICT103 Use, communicate and search securely on the internet.
Version 8.0	February 2022	**AISC endorsement of the following ICT components.** **Units of competency** 33 Units of competency were newly created: • ICTAII401 Identify opportunities to apply artificial intelligence, machine learning and deep learning • ICTAII501 Automate work tasks using machine learning • ICTAII502 Train and evaluate machine learning models • ICTAII503 Build natural language processing models and pipelines • ICTAUT401 Design business process automation solutions • ICTAUT402 Apply robotic desktop automation • ICTAUT403 Conduct software quality assurance testing • ICTAUT501 Manage robotic process automation • ICTAUT502 Evaluate automated industrial manufacturing processes • ICTCLD509 Manage cloud identity and access • ICTCLD510 Manage cloud threat detection systems • ICTCLD511 Protect cloud infrastructure and data • ICTCLD512 Respond to cloud security incidents

- ICTCLD513 Develop cloud-based microservices architecture using containers
- ICTCLD514 Create and test cloud-based serverless applications
- ICTCLD515 Build and deploy cloud-based applications using CI and CD pipelines
- ICTCLD603 Design hybrid cloud-based network architectures
- ICTCLD604 Manage data in cloud environments
- ICTCYS408 Research and source cryptocurrency technologies for organisational needs
- ICTDAT601 Develop data integration strategies
- ICTDAT602 Review data lifecycles
- ICTDAT603 Assess advanced data processes
- ICTDSN401 Design digital user interfaces
- ICTDSN402 Develop digital user interfaces
- ICTDSN403 Apply innovative thinking and practices in digital environments
- ICTICT318 Validate test cases and develop proof of concepts
- ICTICT452 Support the implementation of assistive technologies
- ICTICT453 Evaluate accessibility of organisational systems, programs and software
- ICTICT454 Assess organisational systems using assistive technologies
- ICTWEB453 Optimise websites for mobile devices
- ICTXRE401 Apply augmented reality solutions in organisations
- ICTXRE402 Apply virtual reality solutions in organisations
- ICTXRE403 Design mixed reality solutions.

27 units of competency were updated from *ICT Information and Communications Technology* Version 7.2:

- ICTDMT407 Incorporate video assets into media presentations
- ICTGAM304 Develop three-dimensional (3D) models for digital games
- ICTGAM305 Apply simple textures and shading to three dimensional (3D) models for digital games
- ICTGAM306 Review and apply traditional animation principles
- ICTICT223 Install software applications
- ICTICT224 Integrate commercial computing packages
- ICTICT225 Operate accounting applications
- ICTICT226 Operate simple database applications
- ICTICT314 Connect internal hardware components
- ICTICT315 Implement system software changes

- ICTICT316 Implement new technology
- ICTICT317 Maintain standard operating environments
- ICTICT533 Conduct quality audit of IT system design specifications
- ICTNWK435 Create secure virtual private networks
- ICTNWK562 Configure internet gateways
- ICTNWK624 Configure advanced internetwork routing solutions
- ICTNWK625 Plan and configure advanced internetwork switching solutions
- ICTNWK627 Implement voice applications over secure wireless networks
- ICTNWK628 Design and build integrated VoIP networks
- ICTNWK629 Configure and manage storage area networks
- ICTPRG557 Develop applications using agile methods
- ICTSAD510 Manage risks when implementing new technologies
- ICTSAD614 Lead ICT requirements elicitation
- ICTSAS218 Obtain and connect hardware peripherals
- ICTSAS311 Maintain computer hardware
- ICTSAS312 Provide basic system administration
- ICTSAS530 Use network tools.

SSO (Skills Service Organisation) upgrade of the following components.

Skill sets

48 skill sets were newly created:

- ICTSS00118 User Experience Design Skill Set
- ICTSS00119 Advanced Data Analytics Skill Set
- ICTSS00120 Artificial Intelligence Skill Set
- ICTSS00121 Extended Reality Skill Set
- ICTSS00122 Industrial Automation Skill Set
- ICTSS00123 Software Automation Skill Set
- ICTSS00124 Cloud Infrastructure Skill Set
- ICTSS00125 Cloud Security Skill Set
- ICTSS00126 Advanced Cyber Incident Threat Detection and Prevention Skill Set
- ICTSS00127 Cloud Programmer Skill Set
- ICTSS00128 Network Security and System Protection Skill Set
- ICTSS00129 DevOps System Administration Skill Set
- ICTSS00130 Intermediate Digital Skills for Small Business Skill Set
- ICTSS00131 Introduction to Assistive Technologies Skill Set
- ICTSS00132 Core Technical IT Skills for Introductory Roles Skill Set
- ICTSS00133 Core Transferable IT Skills for Introductory Roles Skill Set

		• ICTSS00134 Database Development for Introductory Roles Skill Set • ICTSS00135 Database Maintenance for Introductory Roles Skill Set • ICTSS00136 Gaming Development for Introductory Roles Skill Set • ICTSS00137 Networking for Introductory Roles Skill Set • ICTSS00138 Programming Skills for Introductory Roles Skill Set • ICTSS00139 Systems Administration Support Skills for • Introductory Roles Skill Set • ICTSS00140 Web Development for Introductory Roles Skill Set • ICTSS00141 Core Technical IT Skills for Intermediate Roles Skill Set • ICTSS00142 Core Transferable IT Skills for Intermediate • Roles Skill Set • ICTSS00143 Networking Skills for Intermediate Roles Skill Set • ICTSS00144 Programming Skills for Intermediate Roles Skill Set • ICTSS00145 Back End Web Development for Intermediate Roles Skill Set • ICTSS00146 Business Analysis for Intermediate Roles Skill Set • ICTSS00147 Cloud Architecture for Intermediate Roles Skill Set • ICTSS00148 Cloud Engineering for Intermediate Roles Skill Set • ICTSS00149 Cyber Security for Intermediate Roles Skill Set • ICTSS00150 Database and Data Management for Intermediate Roles Skill Set • ICTSS00151 Front End Web Development for Intermediate Roles Skill Set • ICTSS00152 Game Art and Design for Intermediate Roles Skill Set • ICTSS00153 Game Programming for Intermediate Roles Skill Set • ICTSS00154 Systems Administration for Intermediate Roles Skill Set • ICTSS00155 Systems Analysis for Intermediate ICT Roles Skill Set • ICTSS00156 Telecommunications Network Engineering for Intermediate Roles Skill Set • ICTSS00157 Core Technical IT Skills for Advanced Roles Skill Set • ICTSS00158 Core Transferable IT Skills for Advanced Roles Skill Set • ICTSS00159 Data Management Information Skills for Advanced Roles Skill Set • ICTSS00160 Cyber Security for Advanced Roles Skill Set

- ICTSS00161 Full Stack Web Development for Advanced Roles Skill Set
- ICTSS00162 Programming Skills for Advanced Roles Skill Set
- ICTSS00163 IT Strategy and Organisational Development for Advanced Roles Skill Set
- ICTSS00164 Systems Development and Analysis for Advanced Roles Skill Set
- ICTSS00165 Telecommunications Network Engineering for Advanced Roles Skill Set.

26 skill sets were updated from the *ICT Information and Communications Training Package* Version 7.2:

- ICTSS00166 Application Development Specialist Skill Set
- ICTSS00167 Basic Application Development Programmer Skill Set
- ICTSS00168 Basic Web Development Specialist Skill Set
- ICTSS00169 Certified Network Associate Technology Specialist Skill Set
- ICTSS00170 Certified Network Professional Specialist - Voice and Wireless Skill Set
- ICTSS00171 Security and Network Architect Specialist Skill Set
- ICTSS00172 Certified Technology Specialist - Graphical User Interfaces Skill Set
- ICTSS00173 Certified Web Design Specialist Skill Set
- ICTSS00174 Hardware Technician Skill Set
- ICTSS00175 Internetworking Systems Coordinator - Administrator Skill Set
- ICTSS00176 Interactive Content Specialist Skill Set
- ICTSS00177 System and Hardware Technician Skill Set
- ICTSS00178 System and Network Plus Technician Skill Set
- ICTSS00179 Virtualisation Specialist Skill Set
- ICTSS00180 Visual Communications Specialist Skill Set
- ICTSS00181 Website Administration Specialist Skill Set
- ICTSS00182 Enterprise Desktop Virtualisation Specialist Skill Set
- ICTSS00183 Enterprise Server Virtualisation Specialist Skill Set
- ICTSS00184 Advanced ICT Sustainability Skill Set
- ICTSS00185 Basic ICT Sustainability Skill Set
- ICTSS00186 Civil Works – Installation of Pit and Pipe and FDH Skill Set
- ICTSS00187 Commercial Digital Television Antenna Systems Installation Skill Set
- ICTSS00188 Network Designer and Installation Skill Set
- ICTSS00189 Digital Antenna System and Component Installation Skill Set
- ICTSS00190 IP Convergence Installation in Small to Medium Networks Skill Set

- ICTSS00191 Wireless LAN and IP Network Installation Skill Set.

Four skill sets were deleted from the *ICT Information and Communications Training Package* Version 7.2:

- ICTSS00035 Certified IT Network Enterprise, Security or Server Administrator Skill Set
- ICTSS00038 Certified Network Professional Specialist Skill Set
- ICTSS00039 Certified Networking Technician Skill Set
- ICTSS00041 Certified Technician or Technology Specialist - Infrastructure Configuration Skill Set.

Qualifications

Minor updates were made to ten qualifications from the *ICT Information and Communications Training Package* Version 7.2:

- ICT20120 Certificate II in Applied Digital Technologies
- ICT20219 Certificate II in Telecommunications Network Build and Operation
- ICT20319 Certificate II in Telecommunications Technology
- ICT30519 Certificate III in Telecommunications Technology
- ICT30120 Certificate III in Information Technology
- ICT30419 Certificate III in Telecommunications Network Build and Operation
- ICT40120 Certificate IV in Information Technology
- ICT41219 Certificate IV in Telecommunications Engineering Technology
- ICT50220 Diploma of Information Technology
- ICT60220 Advanced Diploma of Information Technology.

Units of competency

Minor updates were made to four units of competency from the *ICT Information and Communications Training Package* Version 7.2:

- ICTICT214 Operate application software packages
- ICTICT451 Comply with IP, ethics and privacy policies in ICT environments
- ICTNWK311 Install and test network protocols
- ICTWEB304 Build simple web pages.

Version 7.2	April 2021	**AISC endorsement of the following ICT components.** **Units of competency** Two new units of competency were created: - ICTCYS614 Analyse cyber security insider risks and threats and devise recommendations

		· ICTCYS615 Detect and respond to cyber security insider risks and threats.
		SSO (Skills Service Organisation) upgrade of the following components.
		Qualifications
		Minor updates and/or minor editorial corrections were made to two qualifications from the *ICT Information and Communications Training Package* Version 7.1:
		· ICT40120 Certificate IV in Information Technology
		· ICT60220 Advanced Diploma of Information Technology.
		Units of competency
		Minor editorial corrections were made to three units of competency from the *ICT Information and Communications Training Package* Version 7.1:
		· ICTPRG553 Create and develop REST APIs
		· ICTWEB433 Confirm accessibility of websites
		· ICTWEB444 Create responsive website layouts.
		Skill set
		One new skill set was created:
		· ICTSS00117 Cyber Security Insider Risks and Threats Skill Set.
		The following elective units of competency have been reinstated as directed by the AISC.
		Units of competency
		· ICTDRE305 Develop integrated digital reception systems
		· ICTDRE402 Integrate data delivery modes.
		Qualifications
		Minor updates were made to two qualifications from the *ICT Information and Communications Training Package* Version 7.1, namely adding the units of competency listed above to elective groups:
		· ICT30519 Certificate III in Telecommunications Technology
		· ICT41219 Certificate IV in Telecommunications Engineering Technology.
Version 7.1	February 2021	**The following ICT components have been deleted as directed by the AISC. The training products below were identified as having zero enrolments over the last three years.**
		Units of competency

27 units of competency were deleted from the *ICT Information and Communications Training Package* Version 7.0:

- ICTCBL402 Schedule and supply cabling installation
- ICTDRE305 Develop integrated digital reception systems
- ICTDRE402 Integrate data delivery modes
- ICTNPL403 Evaluate the capability of access networks
- ICTNPL404 Evaluate the planning requirements for provisioning a telecommunications building facility
- ICTNPL405 Develop provisioning of telecommunications building works project
- ICTNPL406 Evaluate core network architectures
- ICTNPL407 Plan the deployment of core network
- ICTNPL408 Produce planning specifications for end-to-end service delivery
- ICTNPL411 Apply compliance requirements to telecommunications work
- ICTRFN302 Install mobile telecommunications in motor vehicles
- ICTRFN303 Install WiMAX customer premises equipment broadband wireless access equipment
- ICTRFN403 Test and repair cellular network equipment
- ICTRFN404 Undertake radio communications signals monitoring
- ICTSMB402 Operate a contractor business with employees
- ICTTCR201 Use rigging practices and systems on telecommunications network structures
- ICTTCR202 Use operational safety in a telecommunications rigging environment
- ICTTCR301 Build a telecommunications radio structure
- ICTTCR302 Install radio plant and equipment on telecommunications structures
- ICTTCR303 Protect against electromagnetic radiation and systems hazards when working on telecomms radio sites
- ICTTEN307 Repair and replace telecommunications network hardware
- ICTTEN319 Recover customer premises equipment
- ICTTEN407 Cut over customer premises equipment major upgrades
- ICTTEN424 Install and configure internet protocol TV in a service provider network
- ICTTEN430 Design infrastructure for telecommunications network installations
- ICTTEN431 Design a dense wavelength division multiplexing system
- ICTWOR402 Schedule equipment maintenance.

Qualifications

| | | Minor updates were made to 4 qualifications from the *ICT Information and Communications Training Package* Version 7.0, which contained at least one of the units of competency listed above:

· ICT20319 Certificate II in Telecommunications Technology
· ICT30519 Certificate III in Telecommunications Technology
· ICT41119 Certificate IV in Telecommunications Network Design
· ICT41219 Certificate IV in Telecommunications Engineering Technology.

SSO (Skills Service Organisation) upgrade to the following components:

Skill sets

3 skill sets were deleted from the *ICT Information and Communications Training Package* Version 7.0:

· ICTSS00088 Advanced Telecommunications Rigging Installation Skill Set
· ICTSS00089 Basic Telecommunications Rigging Installation Skill Set
· ICTSS00112 Internet Protocol Networking Skill Set. |
| Version 7.0 | December 2020 | **AISC endorsement of the following ICT components.**

Qualifications

3 qualifications:

· ICT20120 Certificate II in Applied Digital Technologies
· ICT50220 Diploma of Information Technology
· ICT60220 Advanced Diploma of Information Technology.

The above three qualifications supersede a range of ICT qualifications detailed in the qualification mapping table in this guide.

Units of competency

4 non-equivalent units of competency updated to align content with industry skills needs and standards:

· ICTNWK555 Determine best-fit topologies for local networks
· ICTNWK560 Determine best-fit topologies for wide area networks
· ICTSUS811 Conduct and manage life cycle assessments for sustainability
· ICTTEN524 Diagnose and organise repair of complex equipment faults. |

61 equivalent units of competency updated to align content with industry skills needs and standards:

- ICTCMP502 Conduct radio communications site audits
- ICTICT531 Test network using virtual instruments
- ICTICT818 Develop knowledge management strategies
- ICTICT819 Lead analysis of information and communications technology business strategy
- ICTICT822 Manage automated ICT system applications
- ICTNPL412 Apply business acumen to network planning
- ICTNPL413 Evaluate networking regulations and legislation for the telecommunications industry
- ICTNWK561 Design enterprise wireless local area networks
- ICTOPN507 Plan and configure dense wavelength division multiplexing optical networks
- ICTOPN508 Perform acceptance and commissioning tests on optical networks
- ICTOPN509 Plan for optical system upgrades
- ICTOPN510 Test and commission dense wavelength division multiplexing transmission systems
- ICTOPN511 Test performance of specialised optical devices
- ICTOPN512 Analyse and integrate specialised optical devices
- ICTOPN605 Manage optical ethernet transmission
- ICTOPN606 Manage dense wavelength division multiplexing transmission systems
- ICTOPN607 Design dense wavelength division multiplexing systems
- ICTOPN608 Analyse optical transmission systems
- ICTPMG506 Prepare network project briefs
- ICTRFN504 Test cellular handset enhancements and international roaming agreements
- ICTRFN505 Test and measure cellular phone and network equipment performance
- ICTRFN506 Evaluate radio frequency signal coverage plots
- ICTRFN603 Monitor the capacity of and recommend changes to cellular mobile networks
- ICTRFN804 Produce radio link budgets
- ICTRFN805 Analyse cellular mobile network systems
- ICTRFN806 Analyse satellite communications systems
- ICTSUS502 Install and test virtual infrastructure
- ICTSUS603 Integrate sustainability in ICT planning and design projects
- ICTSUS604 Prepare business cases for sustainability and competitive advantage in ICT projects
- ICTSUS812 Lead applied research in ICT sustainability
- ICTTEN519 Design network building projects
- ICTTEN520 Commission network equipment
- ICTTEN521 Integrate network systems and equipment

		- ICTTEN522 Cut over new and replacement network equipment - ICTTEN523 Locate, diagnose and rectify complex system equipment faults - ICTTEN525 Install, configure and test local area network switches - ICTTEN526 Dimension and design a radio frequency identification system - ICTTEN527 Plan wireless mesh networks - ICTTEN613 Assess integration of international network equipment into Australian networks - ICTTEN614 Conduct network system optimisation and administration - ICTTEN615 Manage network traffic - ICTTEN616 Rectify client services following network outages and faults - ICTTEN617 Manage common channel signalling networks - ICTTEN618 Analyse and organise repair of highly complex networks - ICTTEN619 Test new software and hardware releases - ICTTEN620 Produce and evaluate architecture designs for convergent cellular mobile networks - ICTTEN621 Design and configure IP-MPLS networks with virtual private network tunnelling - ICTTEN622 Produce ICT network architecture designs - ICTTEN623 Design and manage internet protocol TV in a service provider network - ICTTEN817 Plan transmission networks - ICTTEN818 Align systems with product and technology strategy - ICTTEN819 Translate domain and solution architectures into platform requirements and designs - ICTTEN820 Manage end to end architectural solutions across multiple domains - ICTTEN821 Manage solution architecture and impacts - ICTTEN822 Manage application layer solutions - ICTTEN823 Manage voice, data and internet protocol network solutions - ICTTEN824 Manage network testing strategies - ICTTEN825 Investigate applications of cloud networks in network switching - ICTTEN826 Evaluate and apply digital signal processing to communication systems - ICTTEN827 Produce engineering solutions - ICTTEN828 Manage development and application of testing artefacts.

36 units of competency were reviewed and deleted from the *ICT Information and Communications Training Package* Version 6.1:

- ICTEDU501 Develop and deliver training associated with new and modified products
- ICTICT101 Operate a personal computer
- ICTICT102 Operate word-processing applications
- ICTICT103 Use, communicate and search securely on the internet
- ICTICT104 Use digital devices
- ICTICT105 Operate spreadsheet applications
- ICTICT106 Operate presentation packages
- ICTICT107 Use personal productivity tools
- ICTICT108 Use digital literacy skills to access the internet
- ICTICT202 Work and communicate effectively in an ICT environment
- ICTICT801 Lead research into identifying new marketplace opportunities
- ICTICT803 Endorse business plan components for a new initiative
- ICTICT811 Manage an information architecture project
- ICTICT812 Develop a business intelligence framework
- ICTNPL501 Develop planning strategies for core network design
- ICTNPL502 Develop planning strategies for access network design
- ICTNPL503 Apply service measures and demand forecasting to products and services planning
- ICTNPL504 Develop planning strategies for building environment design
- ICTNPL601 Plan the development and growth of the telecommunications network
- ICTNPL602 Forecast service demand
- ICTNPL603 Undertake network performance analysis
- ICTPMG502 Develop customer premises equipment installation project plans
- ICTPMG611 Prepare a detailed design brief
- ICTPMG801 Manage a telecommunications workplace
- ICTPMG803 Undertake a telecommunications project
- ICTPMG804 Evaluate and use telecommunications management networks
- ICTPRO501 Develop training, marketing and sales resources for telecommunications products
- ICTRFN602 Produce and evaluate architecture designs for WiMAX networks
- ICTSUS804 Use ICT to improve sustainability outcomes
- ICTSUS805 Manage improvements in ICT sustainability
- ICTTEN503 Design an electronic system for a telecommunications network

- ICTTEN510 Undertake planned outage management
- ICTTEN512 Design and implement an enterprise voice over
- ICTTEN809 Analyse business specifications to produce technical solutions
- ICTTEN815 Manage project requirements and process implementations
- ICTTEN816 Scope project requirements and process solutions.

IRC approval of the following ICT components.

Skill sets

6 skill sets were newly created for the *ICT Information and Communications Training Package* Version 6.1:

- ICTSS00110 Radio Frequency Skill Set
- ICTSS00111 Optical Networking Skill Set
- ICTSS00112 Internet Protocol Networking Skill Set
- ICTSS00113 Telecommunications Networking Management Skill Set
- ICTSS00114 Advanced Telecommunications Networking Skill Set
- ICTSS00115 XG Cellular Network Infrastructure Rollout Skill Set.

3 skill sets were deleted from the *ICT Information and Communications Training Package* Version 6.1:

- ICTSS00044 Computing and Application Fundamentals Skill Set
- ICTSS00047 Digital Literacy Skill Set
- ICTSS00046 Digital Literacy - eCitizen Skill Set.

17 skill sets were updated from the *ICT Information and Communications Training Package* Version 6.1:

- ICTSS00048 Hardware Technician Skill Set
- ICTSS00077 Telecommunications Linesworker Copper Skill Set
- ICTSS00078 Telecommunications Linesworker Fibre Skill Set
- ICTSS00083 Underground Installations Skill Set
- ICTSS00084 Basic Open Cabler Registration Skill Set
- ICTSS00085 Basic Restricted Cabler Registration Skill Set
- ICTSS00086 ACMA Advanced Cabler Registration Skill Set
- ICTSS00087 Basic Technician Network Build and Operate Skill Set
- ICTSS00091 Radio Technician Skill Set
- ICTSS00092 Technical Help Desk Support Skill Set
- ICTSS00093 Telecommunications Linesworker HFC Skill Set
- ICTSS00094 Technician Fibre Skill Set
- ICTSS00095 Fibre Splicer Skill Set

		• ICTSS00097 Telecommunications Customer Service Technician – HFC Technician Skill Set • ICTSS00098 Network Technician HFC Skill Set • ICTSS00099 Cloud Design and Configuration Skill Set • ICTSS00116 XG Cellular Network Implementation Skill Set.
Version 6.1	October 2020	**SSO (Skills Service Organisation) upgrade.** **Qualifications** Minor update to one *ICT Information and Communications Technology Training Package* Version 6.0 qualification: • ICT30120 Certificate III in Information Technology. Minor update to three *ICT Information and Communications Technology Training Package* Version 6.0 qualifications: • ICT40120 Certificate IV in Information Technology • ICT50120 Diploma of Information Technology • ICT60120 Diploma of Information Technology. **Skill sets** Two new skill sets were created: • ICTSS00108 Digital Skills in Small Business Skill Set • ICTSS00109 Entry to Tech Skill Set. Minor update to one *ICT Information and Communications Technology Training Package* Version 6.0 skill set: • ICTSS00099 Cloud Design and Configuration Skill Set. **Units of competency** Minor update to six *ICT Information and Communications Technology Training Package* Version 6.0 units of competency: • ICTCYS406 Respond to cyber security incidents • ICTCYS601 Create cyber security standards for organisations • ICTICT216 Design and create basic organisational documents • ICTNWK544 Design and implement a security perimeter for ICT networks • ICTPRG549 Apply intermediate object-oriented language skills • ICTSAS210 Update and maintain hardware, software and documentation.
Version 6.0	July 2020	**AISC endorsement of the following ICT components.** **Qualifications** 4 qualifications: • ICT30120 Certificate III in Information Technology

- ICT40120 Certificate IV in Information Technology
- ICT50120 Diploma of Information Technology
- ICT60120 Advanced Diploma of Information Technology were updated and supersede the following 24 qualifications from the ICT Information and Communications Training Package Version 5.1 and are not equivalent to their previous versions:
- ICT30118 Certificate III in Information, Digital Media and Technology
- ICT40118 Certificate IV in Information Technology
- ICT40215 Certificate IV in Information Technology Support
- ICT40315 Certificate IV in Web-Based Technologies
- ICT40418 Certificate IV in Information Technology Networking
- ICT40518 Certificate IV in Programming
- ICT40815 Certificate IV in Digital Media Technologies
- ICT40915 Certificate IV in Digital and Interactive Games
- ICT41015 Certificate IV in Computer Systems Technology
- ICT50118 Diploma of Information Technology
- ICT50215 Diploma of Digital and Interactive Games
- ICT50318 Diploma of Information Technology Systems Administration
- ICT50418 Diploma of Information Technology Networking
- ICT50515 Diploma of Database Design and Development
- ICT50615 Diploma of Website Development
- ICT50718 Diploma of Software Development
- ICT50818 Diploma of Systems Analysis and Design
- ICT50915 Diploma of Digital Media Technologies
- ICT60115 Advanced Diploma of Information Technology
- ICT60215 Advanced Diploma of Network Security
- ICT60315 Advanced Diploma of Information Technology Business Analysis
- ICT60415 Advanced Diploma of Information Technology Project Management
- ICT60515 Advanced Diploma of Computer Systems Technology
- ICT80115 Graduate Certificate in Information Technology and Strategic Management.

Skill sets

9 skill sets were newly created from the *ICT Information and Communications Training Package* Version 5.1:

- ICTSS00099 Cloud Design and Configuration Skill Set
- ICTSS00100 Cloud Implementation and Maintenance Skill Set
- ICTSS00101 Cyber Incident Response Skill Set
- ICTSS00102 Cyber Incident Threat Detection and Prevention
- Skill Set

- ICTSS00103 Cyber Security Strategy and Governance Skill Set
- ICTSS00104 Data Analysis Skill Set
- ICTSS00105 Internet of Things Developer Skill Set
- ICTSS00106 Introductory Tools and Applications Skill Set
- ICTSS00107 Introductory Help Desk Skill Set.

2 skill sets were deleted from the *ICT Information and Communications Training Package* Version 5.1:

- ICTSS00033 Basic Computer Hardware and System Troubleshooting Skill Set
- ICTSS00045 Computing Fundamentals Skill Set.

Units of competency

53 new units of competency were newly created for this *ICT Information and Communications Training Package* Version 5.1:

- ICTCLD401 Configure cloud services
- ICTCLD501 Develop cloud disaster recovery plans
- ICTCLD502 Design and implement highly-available cloud infrastructure
- ICTCLD503 Implement web-scale cloud infrastructure
- ICTCLD504 Improve cloud-based infrastructure
- ICTCLD505 Implement cloud infrastructure with code
- ICTCLD506 Implement virtual network in cloud environments
- ICTCLD507 Build and deploy resources on cloud platforms
- ICTCLD508 Manage infrastructure in cloud environments
- ICTCYS401 Design and implement network security infrastructure for an organisation
- ICTCYS402 Identify and confirm cyber security incidents
- ICTCYS403 Plan and implement information security strategies for an organisation
- ICTCYS404 Run vulnerability assessments for an organisation
- ICTCYS405 Develop cyber security incident response plans
- ICTCYS406 Respond to cyber security incidents
- ICTCYS407 Gather, analyse and interpret threat data
- ICTCYS601 Create cyber security standards for organisations
- ICTCYS602 Implement cyber security operations
- ICTCYS603 Undertake penetration testing for organisations
- ICTCYS604 Implement best practices for identity management
- ICTCYS606 Evaluate an organisation's compliance with cyber security standards and law
- ICTCYS607 Acquire digital forensic data
- ICTCYS608 Perform cyber security risk assessments
- ICTCYS609 Evaluate threats and vulnerabilities of IoT devices
- ICTCYS610 Protect critical infrastructure for organisations
- ICTCYS611 Configure security devices for organisations

		• ICTCYS612 Design and implement virtualised cyber security infrastructure for organisations • ICTCYS613 Utilise design methodologies for security architecture • ICTDAT401 Evaluate organisational compliance with data ethics legislation • ICTDAT402 Clean and verify data • ICTDAT501 Gather, analyse and verify data from different source inputs • ICTDAT502 Conduct significance tests • ICTDAT503 Use unsupervised learning for clustering • ICTICT313 Identify IP, ethics and privacy policies in ICT environments • ICTICT447 Work effectively in agile environments • ICTICT448 Prepare electronic portfolios of work • ICTICT449 Use version control systems in development environments • ICTICT450 Identify and use applications for a distributed ledger • ICTICT451 Comply with IP, ethics and privacy policies in ICT environments • ICTICT527 Develop and maintain blockchain solutions • ICTICT528 Deploy smart contracts • ICTICT529 Organise and lead agile projects • ICTICT530 Design user experience solutions • ICTIOT501 Install IoT devices and networks • ICTIOT502 Program IoT devices • ICTIOT503 Design and test IoT devices and networks • ICTPMG301 Contribute as part of an IT project management team • ICTPRG553 Create and develop REST APIs • ICTPRG554 Manage data persistence using noSQL data stores • ICTPRG555 Implement object relational mapping framework for data persistence • ICTPRG556 Implement and use a model view controller framework • ICTSAD612 Implement and maintain uses of containerisation • ICTSAD613 Install and configure container orchestration services. 7 non-equivalent units of competency updated to align content with industry skills needs and standards: • ICTICT222 Research and share ICT solutions for Indigenous users • ICTICT440 Develop service level agreements • ICTICT532 Apply IP, ethics and privacy in ICT environments

- ICTSAS434 Action change requests and present updated ICT system to clients
- ICTTEN434 Install, configure and test internet protocol networks
- ICTWEB306 Develop web presence using social media
- ICTWEB444 Create responsive website layouts.

255 equivalent units of competency updated to align content with industry skills needs and standards:

- ICTCLD301 Evaluate characteristics of cloud computing solutions and services
- ICTCLD601 Develop cloud computing strategies for businesses
- ICTCLD602 Manage information security compliance of cloud service deployment
- ICTDBS416 Create basic relational databases
- ICTDBS417 Identify and resolve common database performance problems
- ICTDBS418 Monitor and administer databases
- ICTDBS505 Monitor and improve knowledge management systems
- ICTDBS506 Design databases
- ICTDBS507 Integrate databases with websites
- ICTDBS604 Build data warehouses
- ICTDBS605 Develop knowledge management strategies
- ICTDBS606 Determine database functionality and scalability
- ICTDMT404 Create visual design components for digital media
- ICTDMT405 Produce interactive animations
- ICTDMT406 Produce and edit digital images
- ICTGAM420 Produce interactive games
- ICTGAM421 Identify and apply games design and game play principles
- ICTGAM422 Create design documents for interactive games
- ICTGAM423 Apply artificial intelligence in game development
- ICTGAM424 Develop story and content in digital games
- ICTGAM425 Create visual design components in interactive games
- ICTGAM426 Write scripts for interactive games
- ICTGAM427 Use 3-D software interface and toolsets
- ICTGAM428 Create 3-D characters for interactive games
- ICTGAM429 Develop 3-D components for interactive games
- ICTGAM430 Design interactive media
- ICTGAM431 Design and create 3-D digital models
- ICTGAM432 Create audio for digital games
- ICTGAM433 Prepare and complete image rendering processes

		• ICTGAM532 Create design concepts for digital games and 3-D media
		• ICTGAM533 Create complex 3-D interactive games
		• ICTGAM534 Manage interactive media productions
		• ICTGAM535 Develop complex 3-D software for games and interactive media
		• ICTGAM536 Design interactive 3-D applications for scientific and mathematical modelling
		• ICTGAM537 Prepare games for different platforms and delivery modes
		• ICTGAM538 Manage testing of games and interactive media
		• ICTGAM539 Create and implement designs for 3-D games environments
		• ICTGAM540 Design and create models for 3-D and digital effects environments
		• ICTGAM541 Design and create advanced particles, fluids and bodies for 3-D digital effects
		• ICTGAM542 Animate 3-D characters for digital games
		• ICTGAM543 Produce digital animation sequences
		• ICTGAM544 Animate physical attributes of models and elements
		• ICTGAM545 Manage technical art and rigging in 3-D animations
		• ICTGAM546 Create and combine 3-D digital games and components
		• ICTGAM547 Create interactive 3-D environments for digital games
		• ICTGAM548 Complete digital editing for 3-D and digital effects environments
		• ICTGAM549 Collaborate in design of 3-D game levels and environments
		• ICTGAM550 Integrate multiple data sources into interactive 3-D environments
		• ICTGAM551 Apply digital texturing for the 3-D environment in digital games
		• ICTGAM552 Create complex 3-D characters for games
		• ICTGAM553 Integrate database with online games
		• ICTGAM554 Create games for mobile devices
		• ICTGAM555 Analyse business opportunities in the digital games environments
		• ICTGAM556 Develop and implement physics in 3-D digital games
		• ICTGAM557 Complete compositing to create elements for 3-D and digital effects environments
		• ICTICT213 Use computer operating systems and hardware
		• ICTICT214 Operate application software packages
		• ICTICT216 Design and create basic organisational documents
		• ICTICT219 Interact and resolve queries with ICT clients

		• ICTICT221 Identify and use specific industry standard technologies
		• ICTICT309 Create ICT user documentation
		• ICTICT310 Identify and use industry specific technologies
		• ICTICT311 Customise packaged software applications
		• ICTICT312 Use advanced features of applications
		• ICTICT429 Determine and confirm client business requirements
		• ICTICT430 Apply software development methodologies
		• ICTICT431 Use online tools for learning
		• ICTICT432 Develop detailed technical design
		• ICTICT433 Build graphical user interfaces
		• ICTICT434 Maintain website information standards
		• ICTICT435 Create technical documentation
		• ICTICT436 Develop macros and templates for clients using standard products
		• ICTICT437 Conduct post-implementation ICT system reviews
		• ICTICT438 Select, configure and deploy software and hardware testing tools
		• ICTICT441 Provide one-to-one instructions
		• ICTICT443 Work effectively in the ICT industry
		• ICTICT444 Develop client user interfaces
		• ICTICT445 Connect and configure devices and hardware components
		• ICTICT446 Apply ICT service management principles
		• ICTICT518 Research and review hardware technology options for organisations
		• ICTICT520 Confirm transition strategy for a new system
		• ICTICT521 Select new technology supported business model
		• ICTICT522 Evaluate vendor products and equipment
		• ICTICT523 Gather data to identify business requirements
		• ICTICT524 Determine ICT strategies and solutions for organisations
		• ICTICT525 Identify and manage the implementation of industry specific technologies
		• ICTICT526 Verify client business requirements
		• ICTICT611 Develop ICT strategic business plans
		• ICTICT612 Develop contracts and manage contract performance
		• ICTICT613 Manage the use of development methodologies
		• ICTICT614 Identify and implement business innovation
		• ICTICT615 Implement knowledge management strategies
		• ICTICT616 Develop communities of practice
		• ICTICT617 Lead the evaluation and implementation of current industry specific technologies
		• ICTICT618 Manage IP, ethics and privacy in ICT environments
		• ICTNWK307 Provide network systems administration
		• ICTNWK308 Determine and action network problems

		- ICTNWK309 Configure and administer network operating systems - ICTNWK310 Administer network peripherals - ICTNWK311 Install and test network protocols - ICTNWK422 Install and manage servers - ICTNWK424 Install and operate small enterprise branch networks - ICTNWK425 Build small wireless local area networks - ICTNWK426 Install and configure client-server applications and services - ICTNWK427 Configure desktop environments - ICTNWK428 Create scripts for networking - ICTNWK429 Install hardware to networks - ICTNWK430 Deploy software to networked computers - ICTNWK431 Create network documentation - ICTNWK432 Build an enterprise wireless network - ICTNWK433 Install backbone technologies in a local area network - ICTNWK434 Identify and implement industry standard virtualisation technologies - ICTNWK537 Implement secure encryption technologies - ICTNWK538 Install and maintain valid authentication processes - ICTNWK539 Design and implement integrated server solutions - ICTNWK541 Configure, verify and troubleshoot WAN links and IP services - ICTNWK542 Install, operate and troubleshoot medium enterprise routers - ICTNWK543 Install, operate and troubleshoot medium enterprise switches - ICTNWK544 Design and implement a security perimeter for ICT networks - ICTNWK545 Develop, implement and evaluate systems and applications security - ICTNWK547 Manage system security on operational systems - ICTNWK548 Model preferred system solutions - ICTNWK549 Design ICT security frameworks - ICTNWK550 Design ICT system security controls - ICTNWK551 Build decks using wireless markup language - ICTNWK552 Install and configure network access storage devices - ICTNWK553 Configure enterprise virtual computing environments - ICTNWK554 Manage enterprise virtual computing environments - ICTNWK556 Identify and resolve network problems - ICTNWK557 Configure and manage advanced virtual computing environments

| | | ICTNWK558 Monitor and troubleshoot virtual computing environments ICTNWK559 Install an enterprise virtual computing environment ICTNWK618 Design and implement a security system ICTNWK619 Plan, configure and test advanced server-based security ICTNWK620 Design and implement wireless network security ICTNWK621 Configure network devices for a secure network infrastructure ICTNWK622 Configure and manage intrusion prevention system on network sensors ICTNWK623 Manage ICT security ICTPMG411 Support small scale ICT projects ICTPMG612 Manage ICT project initiation ICTPMG614 Manage ICT project delivery ICTPMG615 Manage ICT project closure ICTPMG616 Manage ICT project systems implementation ICTPMG617 Plan and direct complex ICT projects ICTPRG302 Apply introductory programming techniques ICTPRG429 Maintain open-source code programs ICTPRG431 Apply query language in relational databases ICTPRG432 Develop data-driven applications ICTPRG433 Test software developments ICTPRG434 Automate processes ICTPRG435 Write scripts for software applications ICTPRG436 Develop mobile applications ICTPRG437 Build a user interface ICTPRG438 Configure and maintain databases ICTPRG439 Use pre-existing components ICTPRG440 Apply introductory programming skills in different languages ICTPRG441 Apply skills in object-oriented design ICTPRG442 Apply mathematical techniques for software development ICTPRG443 Apply intermediate programming skills in different languages ICTPRG444 Analyse software requirements ICTPRG446 Prepare software development review ICTPRG447 Use extensible markup language ICTPRG530 Manage projects using software management tools ICTPRG533 Debug and monitor applications ICTPRG534 Deploy applications to production environments ICTPRG535 Build advanced user interfaces ICTPRG536 Design application architecture ICTPRG537 Implement security for applications ICTPRG538 Create mashups |

		• ICTPRG540 Maintain custom software
		• ICTPRG541 Monitor and support data conversion to new ICT systems
		• ICTPRG542 Review developed software
		• ICTPRG543 Develop integration blueprint for ICT systems
		• ICTPRG544 Install, test and evaluate pilot version of ICT systems
		• ICTPRG545 Monitor system pilots
		• ICTPRG546 Validate application designs against specifications
		• ICTPRG547 Apply advanced programming skills in another language
		• ICTPRG548 Develop high-level object-oriented class specifications
		• ICTPRG549 Apply intermediate object-oriented language skills
		• ICTPRG550 Perform ICT data conversions
		• ICTPRG551 Apply testing techniques for software development
		• ICTPRG603 Develop advanced mobile multi-touch applications
		• ICTPRG614 Create cloud computing services
		• ICTSAD402 Develop and present ICT feasibility reports
		• ICTSAD507 Design and implement quality assurance processes for business solutions
		• ICTSAD508 Develop technical requirements for business solutions
		• ICTSAD509 Produce ICT feasibility reports
		• ICTSAD608 Perform ICT-focused enterprise analysis
		• ICTSAD609 Plan and monitor business analysis activities in an ICT environment
		• ICTSAD610 Analyse stakeholder requirements
		• ICTSAD611 Manage assessment and validation of ICT solutions
		• ICTSAS210 Update and maintain hardware, software and documentation inventories
		• ICTSAS211 Develop solutions for basic ICT malfunctions and problems
		• ICTSAS212 Record the requirements of client support requests
		• ICTSAS213 Maintain the integrity of ICT systems
		• ICTSAS214 Protect devices from spam and destructive software
		• ICTSAS215 Protect and secure information assets
		• ICTSAS216 Maintain ICT equipment and replace consumables
		• ICTSAS217 Connect a home based local wireless network
		• ICTSAS309 Maintain and repair ICT equipment and software

		• ICTSAS310 Install, configure and secure a small office or home office network • ICTSAS428 Hand over ICT system components to clients • ICTSAS432 Identify and resolve client ICT problems • ICTSAS433 Update ICT client support procedures and assist with policy development • ICTSAS435 Resolve system faults on a live system • ICTSAS436 Evaluate ICT system status • ICTSAS437 Optimise ICT system performance • ICTSAS438 Implement maintenance procedures • ICTSAS439 Analyse ICT system capacity and implement enhancements • ICTSAS440 Monitor and administer security of ICT systems • ICTSAS441 Support ICT system software • ICTSAS442 Provide first-level remote help desk support • ICTSAS443 Support operating system users and troubleshoot applications • ICTSAS444 Repair operating systems boot up procedures • ICTSAS445 Configure and troubleshoot operating system software • ICTSAS446 Fault find and troubleshoot ICT equipment, hardware and software problems • ICTSAS524 Develop, implement and evaluate an incident response plan • ICTSAS526 Review and update disaster recovery and contingency plans • ICTSAS528 Review and develop ICT maintenance strategies • ICTSAS529 Prioritise ICT change requests • ICTWEB304 Build simple web pages • ICTWEB305 Produce digital images for the web • ICTWEB432 Design website layouts • ICTWEB433 Confirm accessibility of websites • ICTWEB434 Transfer content to websites • ICTWEB435 Maintain website performance • ICTWEB436 Monitor traffic and compile website traffic reports • ICTWEB437 Create website testing procedures • ICTWEB438 Conduct operational acceptance tests of websites • ICTWEB439 Confirm basic website security • ICTWEB440 Use web authoring tools • ICTWEB441 Produce basic client-side script • ICTWEB442 Produce interactive web animation • ICTWEB443 Implement search engine optimisations • ICTWEB445 Implement content management systems • ICTWEB446 Integrate social web technologies • ICTWEB447 Build basic website using development software and ICT tools

- ICTWEB448 Confirm website content meets technical protocols and standards
- ICTWEB449 Confirm website access and useability
- ICTWEB450 Evaluate and select a web hosting service
- ICTWEB451 Apply structured query language in relational databases
- ICTWEB452 Create a markup language document
- ICTWEB513 Build dynamic websites
- ICTWEB514 Create dynamic web pages
- ICTWEB517 Create web-based programs
- ICTWEB518 Build a document using extensible markup language
- ICTWEB519 Develop complex web page layouts
- ICTWEB520 Develop complex cascading style sheets
- ICTWEB521 Customise complex ICT content management systems
- ICTWEB522 Develop website information architecture
- ICTWEB523 Manage transactions using site server tools
- ICTWEB524 Analyse information and assign meta tags
- ICTWEB525 Implement quality assurance process for websites
- ICTWEB526 Implement and use web services
- ICTWEB527 Research and apply emerging web technology trends.

12 units of competency:

- ICTGAM535 Develop complex 3-D software for games and interactive media
- ICTICT519 Develop detailed component specifications from project specifications
- ICTNWK423 Manage network and data integrity
- ICTNWK540 Design, build and test network servers
- ICTNWK546 Manage network security
- ICTPMG505 Manage ICT projects
- ICTPMG613 Manage ICT project planning
- ICTPRG605 Manage development of technical solutions from business specifications
- ICTSAS525 Develop and conduct client acceptance tests
- ICTSAS527 Manage client problems
- ICTSAS602 Implement change management processes
- ICTWEB451 Apply structured query language in relational databases

were updated and supersede 12 units of competency from the *ICT Information and Communications Training Package* Version 5.1 and are not equivalent to their previous versions:

- ICTGAM507 Develop intermediate 3-D software for games and interactive media
- ICTPMG504 Prepare project specifications
- ICTPMG610 Develop a project management plan

| | | • ICTPMG802 Manage a telecommunications project |
| | | |

- ICTPMG802 Manage a telecommunications project
- ICTPRG425 Use structured query language
- ICTTEN501 Provide consultancy and technical support in the customer premises equipment sector
- ICTTEN504 Acceptance test new systems and equipment
- ICTTEN511 Administer a data communications network
- ICTTEN514 Install, configure and test a server
- ICTTEN516 Produce technical solutions from business specifications
- ICTTEN605 Implement planned network changes with minimal impact to the customer
- ICTTEN811 Evaluate and apply network security.

38 units of competency were deleted from the *ICT Information and Communications Training Package* Version 5.1:

- ICTDBS408 Link an RFID system to a database
- ICTGAM415 Develop simple environments for 3-D games
- ICTGAM417 Apply digital effects to interactive products
- ICTGAM506 Create complex code for mobile game devices
- ICTICT402 Determine project specifications and secure client agreement
- ICTICT412 Coordinate and maintain ICT work teams
- ICTICT416 Contribute to the development of strategic plans
- ICTICT512 Plan process re-engineering strategies for business
- ICTICT802 Direct ICT services
- ICTICT804 Direct ICT in a supply chain
- ICTICT805 Direct ICT procurement
- ICTICT806 Direct outsourced ICT services
- ICTICT807 Direct research and business response to new ICT technology
- ICTICT810 Synchronise ICT projects
- ICTICT813 Manage ICT services
- ICTNWK414 Create a common gateway interface script
- ICTNWK521 Install, configure and test a payment gateway
- ICTPMG601 Establish ICT project governance
- ICTPMG606 Manage ICT project quality
- ICTPMG607 Manage and control ICT project risks
- ICTPRG416 Manage a software component re-use library
- ICTPRG428 Use regular expressions in programming languages
- ICTPRG512 Prepare for the build phase of an ICT system
- ICTPRG513 Coordinate the build phase of an ICT system
- ICTPRG525 Build Java applets
- ICTPRG526 Maintain functionality of legacy code programs
- 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
		• ICTSAS507 Implement and evaluate systems for regulatory and standards compliance
		• ICTSUS802 Conduct a business case study for integrating sustainability in ICT planning and design projects
		• ICTSUS803 Research strategies using SAP solutions for sustainable economic and environmental outcomes
		• ICTSUS808 Plan and manage virtualisation for ICT sustainability
		• ICTWEB419 Develop guidelines for uploading information to a website
		• ICTWEB512 Administer business websites and servers.
Version 5.1	January 2020	Minor updates to Companion Volume
Version 5.0	May 2019	**Qualifications** Six qualifications were updated from the *ICT Information and Communications Technology Training Package* Version 4.0 and supersede but are not equivalent to their previous versions: • ICT20219 Certificate II in Telecommunications Network Build and Operation supersedes ICT20215 Certificate II in Telecommunications Network Build and Operate and is deemed not equivalent (updated to increase core unit requirement from five to six and to decrease elective unit requirement from seven to six; remove two elective units of competency and insert four elective units of competency; modify title, packaging rules and groups.) • ICT20319 Certificate II in Telecommunications Technology supersedes ICT20315 Certificate II in Telecommunications Technology and is deemed not equivalent (updated to increase core unit requirement from six to seven and to decrease elective unit requirement from nine to six; insert one elective unit of competency; modify packaging rules and groups to introduce two specialisations.) • ICT30419 Certificate III in Telecommunications Network Build and Operation supersedes ICT30415 Certificate III in Telecommunications Network Build and Operate and is deemed not equivalent (updated to increase core unit requirement from five to six and to decrease elective core unit requirement from nine to eight; remove one elective unit of competency and insert 18 elective units of competency; modify title, packaging rules and groups.)

- ICT30519 Certificate III in Telecommunications Technology supersedes ICT30515 Certificate III in Telecommunications Technology and is deemed not equivalent (updated to decrease core unit requirement from seven to six and to increase elective unit requirement from nine to ten; remove 12 elective units of competency and insert 27 elective units of competency; modify packaging rules and groups to introduce four specialisations.)
- ICT41119 Certificate IV in Telecommunications Network Design supersedes ICT41115 Certificate IV in Telecommunications Network Design and is deemed not equivalent (updated to decrease core unit requirement from eight to six and to increase elective unit requirement from eight to 10; remove one elective unit of competency and insert nine elective units of competency; modify packaging rules and groups and introduce qualification entry requirements.)
- ICT41219 Certificate IV in Telecommunications Engineering Technology supersedes ICT41215 Certificate IV in Telecommunications Engineering Technology and is deemed not equivalent (updated to decrease core unit requirement from eight to five and increase the elective unit requirement from eight to 12; remove four elective units and insert ten elective units; modify packaging rules and groups to introduce one specialisation and introduce qualification entry requirements.)

Two qualifications were deleted from the *ICT Information and Communications Technology Training Package*:

- ICT30215 Certificate III in Telecommunications Digital Reception Technology
- ICT30315 Certificate III in Telecommunications Rigging Installation.

Three qualifications were updated as part of an SSO upgrade to reflect changed elective units:

- ICT30118 Certificate III in Information, Digital Media and Technology
- ICT40215 Certificate IV in Information Technology Support (equivalent and non-equivalent elective units updated)
- ICT40418 Certificate IV in Information Technology Networking (non-equivalent elective unit updated).

Units of competency

13 new units of competency were newly created for this *ICT Information and Communications Technology Training Package* Version 5.0:

- ICTBWN306 Use radio frequency measuring instruments
- ICTBWN307 Use optical measuring instruments

- ICTCBL248 Install and terminate hard-line coaxial cable
- ICTCBL331 Conduct basic identification and fault-finding within cabling networks and customer equipment
- ICTCBL332 Locate, identify and rectify copper cable faults
- ICTDRE308 Install a cable broadband multi-dwelling unit system
- ICTTEN210 Install underground telecommunications infrastructure
- ICTTEN211 Work effectively in a telecommunications network environment
- ICTTEN315 Determine and apply technologies within a telecommunications system
- ICTTEN316 Conduct basic tests and analyses of telecommunications copper cabling
- ICTTEN317 Locate, identify and rectify telecommunications network faults
- ICTTEN435 Solve electrical-based telecommunications circuitry and cabling problems
- ICTWOR308 Provide customer service to telecommunications customers.

42 units of competency were updated from the *ICT Information and Communications Technology Training Package* Version 4.0:

27 units supersede and are equivalent to their previous versions:

- ICTCBL239 Install customer cable support systems (recoded from ICTCBL201)
- ICTCBL240 Place and secure customer cable (recoded from ICTCBL202)
- ICTCBL241 Terminate metallic conductor customer cable recoded from ICTCBL203
- ICTCBL242 Install functional and protective telecommunications earthing system (recoded from ICTCBL204)
- ICTCBL246 Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule (recoded from ICTCBL236)
- ICTCBL247 Install, maintain and modify customer premises communications cabling: ACMA Open Rule (recoded from ICTCBL237)
- ICTCBL252 Joint and terminate coaxial cable (recoded from ICTCBL209)
- ICTCBL253 Construct underground telecommunications infrastructure (recoded from ICTTCBL213)
- ICTCBL254 Joint metallic conductor cable in access network (recoded from ICTCBL215)
- ICTCBL324 Cut over new systems and equipment on customer premises (recoded from ICTCBL312)

		• ICTCBL325 Maintain cable network (recoded from ICTCBL315) • ICTCBL326 Cut over metallic conductor cable in the access network (recoded from ICTCBL317) • ICTCBL334 Install underground enclosures and conduit (recoded from ICTCBL307) • ICTCBL335 Construct aerial cable supports (recoded from ICTCBL309) • ICTCBL336 Install and cut over metallic conductor cable to access network cabinet (recoded from ICTCBL318) • ICTCMP203 Perform restricted customer premises broadband cabling work: ACMA Restricted Rule (recoded from ICTCMP202) • ICTDRE314 Design communications wiring systems for customer premises (recoded from ICTDRE304) • ICTOPN405 Install and test a dense wavelength division multiplexing system (recoded from ICTOPN401) • ICTRFN407 Conduct radio frequency measurements (recoded from ICTRFN401) • ICTTEN312 Install telecommunications network equipment (recoded from ICTTEN302). • ICTTEN313 Work on and resolve recurrent network faults (recoded from ICTTEN303) • ICTTEN319 Recover customer premises equipment (recoded from ICTTEN304) • ICTTEN320 Commission an electronic unit (recoded from ICTTEN306) • ICTTEN321 Maintain an electronic system (recoded from ICTTEN308) • ICTTEN322 Provide infrastructure for telecommunications network customer equipment (recoded from ICTTEN309) • ICTTEN432 Identify requirements for customer telecommunications equipment (recoded from ICTTEN401). • ICTTEN433 Install configuration programs on PC based customer equipment (recoded from ICTTEN405). 15 units supersede but are not equivalent to their previous versions: • ICTBWN308 Work safely on live optical fibre installations (recoded from ICTBWN304) • ICTBWN309 Perform tests on optical communication system and components (recoded from ICTBWN301) • ICTCBL249 Haul underground cable for installation and maintenance work (recoded from ICTCBL207) • ICTCBL250 Haul and fix aerial cable (recoded from ICTCBL214) • ICTCBL251 Install aerial and underground cable lead-ins (recoded from ICTCBL220)

- ICTCBL322 Install, test and terminate optical fibre cable on customer premises recoded from ICTCBL302)
- ICTCBL323 Test cables and systems on customer premises (recoded from ICTCBL304)
- ICTCBL329 Install underground cable for communications applications (recoded from ICTCBL308)
- ICTCBL330 Splice and terminate optical fibre cable for telecommunications projects (recoded from ICTCBL208)
- ICTCBL333 Install aerial cable for communications applications (recoded from ICTCBL310)
- ICTOPN404 Test optical communications systems and components (recoded from ICTOPN402)
- ICTTEN208 Use electrical skills when working with telecommunications networks (recoded from ICTTEN201)
- ICTTEN318 Inspect, clean and handle optical fibre cable and connectors (recoded from ICTTEN311)
- ICTWHS205 Work safely near power infrastructure at a telecommunications workplace (recoded from ICTWHS203)
- ICTWOR202 Work effectively in the digital and telecommunications industry (recoded from ICTWOR201).

Two units of competency were deleted from the *ICT Information and Communications Technology Training Package* Version 4.0:

- ICTBWN305 Use optical and radio frequency measuring instruments
- ICTTEN305 Refurbish customer premises equipment.

Four new skill sets were newly created from the *ICT Information and Communications Technology Training Package* Version 4.0:

- ICTSS00087 Basic Technician Network Build and Operate
- Skill Set
- ICTSS00096 Technician Hybrid Fibre Coaxial Skill Set
- ICTSS00097 Telecommunications Customer Service Technician - HFC Technician Skill Set
- ICTSS00098 Network Technician HFC Skill Set.

Ten skill sets were updated and are deemed not equivalent *to ICT Information and Communications Technology Training Package* Version 4.0:

- ICTSS00084 Basic Open Cabler Registration Skill Set supersedes ICTSS00062 Basic Open Cabler Registration Skill Set
- ICTSS00085 Basic Restricted Cabler Registration Skill Set supersedes ICTSS00063 Basic Restricted Cabler Registration Skill Set
- ICTSS00088 Advanced Telecommunications Rigging Installation Skill Set supersedes ICTSS00060 Advanced
- Telecommunications Rigging Installation Skills Set

- ICTSS00089 Basic Telecommunications Rigging Installation Skill Set supersedes ICTSS00064 Basic Telecommunications Rigging Installation Skill Set
- ICTSS00090 Advanced IoT Installation Skill Set supersedes ICTSS00067 Convergent Technology Skill Set
- ICTSS00091 Radio Technician Skill Set supersedes ICTSS00074 Radio Technician Skill Set
- ICTSS00092 Technical Help Desk supersedes ICTSS00075 Technical Help Skill Set
- ICTSS00093 Telecommunications Linesworker HFS Skill Set supersedes ICTSS00093 Telecommunications Linesworker Skill Set
- ICTSS00094 Technician Fibre Skill Set supersedes
- ICTSS00081 Technician Fibre Skill Set
- ICTSS00095 Fibre Splicer Skill Set supersedes ICTSS00082 Fibre Splicer Skill Set.

Ten skill sets were updated to include unit code updates:

- ICTSS00058 ACMA Advanced Cabler Registration Skill Set
- ICTSS00065 Civil Works - Installation of Pit and Pipe and FDH Skill Set
- ICTSS00066 Commercial Digital Television Antenna Systems Installation Skill Set
- ICTSS00069 Domestic Digital Television Antenna Installation Skill Set
- ICTSS00071 IP Convergence Installations for Home and SME Skill Set
- ICTSS00076 Wireless LAN and IP Network Installation Skill Set
- ICTSS00077 Telecommun8ications Linesworker Copper Skill Set
- ICTSS00078 Telecommunications Linesworker Fibre Skill Set
- ICTSS00080 Copper Cable Jointer Skill Set
- ICTSS00083 Underground Installations Skill Set.

Non-endorsable units of competency

21 units of competency were updated to fix minor typographical errors and are equivalent to *ICT Information and Communications Technology Training Package* Version 4.0:

- ICTCBL205 Joint metallic conductor cable on customer premises
- ICTCBL206 Alter services to existing cable system
- ICTCBL210 Install a telecommunications service to a building
- ICTCBL238 Install, maintain and modify customer premises communications cabling: ACMA Lift Rule
- ICTCBL301 Install, terminate and certify structured cabling installation

		• ICTCBL303 Install and terminate coaxial cable • ICTCBL305 Hand over cable systems and equipment • ICTCBL306 Locate and identify cable system faults • ICTCBL313 Modify and cutover cable • ICTCBL316 Install ribbon fibre cable in the FTTX distribution network • ICTCBL319 Rearrange large size copper cable • ICTDRE301 Install digital reception equipment • ICTDRE303 Install a complex digital reception system • ICTPMG201 Prepare site for support installation • ICTRFN406 Maintain hybrid fibre coaxial broadband cable network • ICTTEN202 Use hand and power tools • ICTTEN307 Repair and replace telecommunications network hardware • ICTWOR307 Collect and analyse technical information • ICTWHS204 Follow work health and safety and environmental policy and procedures • ICTSAS410 Identify and resolve client ICT problems • ICTPRG415 Apply skills in object-oriented design.
Version4.0	November 2018	**Qualifications** Nine qualifications were updated from the *ICT Information and Communications Technology Training Package* Version 3.1: • ICT30118 Certificate III in Information, Digital Media and Technology supersedes ICT30115 Certificate III in Information, Digital Media and Technology and is equivalent (updated to change one out of six core units of competency) • ICT40118 Certificate IV in Information Technology supersedes ICT40115 Certificate IV in Information Technology and is not equivalent (updated to change three core units of competency, remove four elective units of competency, insert 17 elective units of competency, and modify the packaging rules and groups) • ICT40418 Certificate IV in Information Technology Networking supersedes ICT40415 Certificate IV in Information Technology Networking and is equivalent (updated to change one out of eight core units of competency) • ICT40518 Certificate IV in Programming supersedes ICT40515 Certificate IV in Programming and is equivalent (updated to change one out of ten core units of competency) • ICT50118 Diploma of Information Technology supersedes ICT50115 Diploma of Information Technology and is equivalent (updated to change one out of four core units of competency) • ICT50318 Diploma of Information Technology Systems Administration supersedes ICT50315 Diploma of Information Technology Systems Administration and is equivalent

(updated to change one out of ten core units of competency)
- ICT50418 Diploma of Information Technology Networking supersedes ICT50415 Diploma of Information Technology Networking and is equivalent (updated to change one out of five core units of competency)
- ICT50718 Diploma of Software Development supersedes ICT50715 Diploma of Software Development and is equivalent (updated to change one out of ten core units of competency)
- ICT50818 Diploma of Systems Analysis and Design supersedes ICT50815 Diploma of Systems Analysis and Design and is equivalent (updated to change one out of nine core units of competency).

Three qualifications were deleted from the *ICT Information and Communications Technology Training Package*:

- ICT40615 Certificate IV in Information Technology Testing
- ICT40715 Certificate IV in Systems Analysis and Design
- ICT80215 Graduate Certificate in Information Technology Sustainability.

Units of competency

Four units of competency were newly created:

- 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
- ICTWEB431 Create and style simple markup language documents.

20 units of competency were updated from the *ICT Information and Communications Technology Training Package* Version 3.1:

- ICTDBS413 Determine database requirements (updated Title, Application, Elements, and Assessment Requirements to clarify intent) (recoded from ICTDBS401)
- ICTDBS414 Complete database backup and restore (updated Application, Elements, and Assessment Requirements to clarify intent) (recoded from ICTDBS402)
- ICTDBS415 Build a database (updated Elements, and Assessment Requirements to clarify intent) (recoded from ICTDBS412)
- ICTICT427 Identify, evaluate and apply current industry specific technologies to meet organisational needs (updated Title, Application, Elements, and Assessment Requirements to clarify intent) (recoded from ICTICT417)

		- ICTICT428 Select cloud storage solutions (updated Title, Application and Element 1 to clarify intent and scope; integrated Element 3 into Element 2; and updated Foundation Skills to reflect unit content) (recoded from ICTICT423) - ICTICT517 Match ICT needs with the strategic direction of the organisation (updated Title, Application, Elements, and Assessment Requirements to clarify intent and scope) (recoded from ICTICT511) - ICTNWK420 Install and configure virtual machines (updated Assessment Requirements and typographical edit to title to clarify intent) (recoded from ICTNWK402) - ICTNWK421 Install, configure and test network security (updated Application, Elements and Assessment Requirements to clarify intent and scope; and updated Foundation Skills to reflect unit content) (recoded from ICTNWK406) - ICTNWK536 Plan, implement and test enterprise communication solutions (updated Application, Elements and Assessment Requirements to clarify intent and scope; and updated Foundation Skills to reflect unit content) (recoded from ICTNWK501) - ICTPRG430 Apply introductory object-oriented language skills (updated Elements, Foundation Skills and Assessment Requirements to clarify intent) (recoded from ICTPRG406) - ICTPRG531 Prepare for application development using current methods (updated Title, Application, Elements, and Assessment Requirements to modify intent and scope) (recoded from ICTPRG514) - ICTPRG532 Apply advanced object-oriented language skills (updated Elements and Assessment Requirements to clarify intent) (recoded from ICTPRG501) - ICTSAS308 Run standard diagnostic tests (updated Application, Elements and Assessment Requirements to clarify intent and scope) (recoded from ICTSAS301) - ICTSAS519 Perform systems tests (updated unit of competency to incorporate relevant content from ICTSAS401) (recoded from ICTSAS503) - ICTSAS520 Develop detailed test plans (updated unit of competency to reflect industry requirements) (recoded from ICTSAS513) - ICTSAS521 Perform integration tests (updated unit of competency to reflect industry requirements) (recoded from ICTSAS514) - ICTSAS522 Manage the testing process (updated unit of competency to reflect industry requirements) (recoded from ICTSAS515)

		- ICTSAS523 Perform stress and load tests on integrated platforms (updated unit of competency to reflect industry requirements) (recoded from ICTSAS516) - ICTSUS808 Plan and manage virtualisation for ICT sustainability (updated unit of competency to reflect industry requirements) (recoded from ICTSUS801) - ICTWEB430 Produce server-side script for dynamic web pages (updated unit of competency to reflect industry requirements) (recoded from ICTWEB415). Six units of competency were deleted from the *ICT Information and Communications Technology Training Package*: - ICTSAS401 Perform unit test for a class - ICTSAS405 Identify and evaluate ICT industry vendor technologies - ICTSUS401 Install and test renewable energy system for ICT networks - ICTWEB301 Create a simple markup language document - ICTWEB409 Develop cascading style sheets - ICTWEB420 Write content for web pages.
Version 3.1		SSO (Skills Service Organisation) upgrades to correct minor mapping errors. **Qualifications** Six qualifications were updated and equivalent to *ICT Information and Communications Technology Training Package* Version 3: - ICT20215 Certificate II in Telecommunications Network Build and Operate (minor update to the specialist stream elective groups) - ICT30415 Certificate III in Telecommunications Network Build and Operate (packaging rules updated to require six electives, minor update to the specialist stream elective groups) - ICT40815 Certificate IV in Digital Media Technologies (updated to clarify packaging rules) - ICT40915 Certificate IV in Digital and Interactive Games (updated to clarify packaging rules) - ICT80215 Graduate Certificate in Information Technology Sustainability (updated qualification description). Two qualifications were updated and equivalent to *ICT Information and Communications Technology Training Package* Version 3 to reflect changes in unit of competency titles in this release: - ICT50415 Diploma of Information Technology Networking - ICT51015 Diploma of Telecommunications Engineering. **Skill sets**

Seven new skill sets:

- ICTSS00077 Telecommunications Linesworker Copper Skill Set
- ICTSS00078 Telecommunications Linesworker Fibre Skill Set
- ICTSS00079 Telecommunications Linesworker HFC Skill Set
- ICTSS00080 Copper Cable Jointer Skill Set
- ICTSS00081 Technician Fibre Skill Set
- ICTSS00082 Fibre Splicer Skill Set
- ICTSS00083 Underground Installations Skill Set.

Three skill sets were removed:

- ICTSS00070 Installing NBN Wireless and Infrastructure Skill Set
- ICTSS00072 National Broadband Network Advanced Linesworker/Installer Skill Set
- ICTSS00073 National Broadband Network Splicer Skill Set.

Units of competency

Six units of competency were updated and equivalent to *ICT Information and Communications Technology Training Package* Version 3:

- ICTCBL236 Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule (updated to include the ACMA's assessment standards for persons seeking registration)
- ICTCBL237 Install, maintain and modify customer premises communications cabling: ACMA Open Rule (updated to include the ACMA's assessment standards for persons seeking registration)
- ICTNWK405 Build a small wireless local area network (updated to reinstate performance element from ICT Information and Communications Technology version 2)
- ICTTEN512 Design and implement an enterprise voice over internet protocol and a unified communications network (unit of competency title updated to correct typographical error)
- ICTWHS204 Follow work health and safety and environmental policy and procedures (updated to correct typographical errors)
- ICTWOR307 Collect and analyse technical information (updated to correct typographical errors).

Version 3.0	January 2016	**Units of competency**
		Six new units of competency:
		• ICTCBL317 Cut over metallic conductor cable in the access network
		• ICTCBL318 Install and cut over metallic conductor cable to access network cabinet

		• ICTCBL319 Rearrange large size copper cable • ICTCBL320 Jumper metallic conductor cable in the access network • ICTTEN310 Remove and replace electronic circuit boards in carrier equipment • ICTTEN311 Inspect, clean and handle optical fibre cable and connectors. **Industry Skills Council upgrades** Unit code updates and/or modifications to elective banks in two qualifications: • ICT20215 Certificate II in Telecommunications Network Build and Operate • ICT30415 Certificate III in Telecommunications Network Build and Operate.
Version 2.0	January 2016	Qualifications, skill sets and units from *ICT10 Integrated Telecommunications Training Package* were reviewed and updated to meet Standards for Training Packages and included in the *ICT Information and Communications Technology Training Package* Version 2. **Qualifications** 12 qualifications: • ICT20215 Certificate II in Telecommunications Network Build and Operate • ICT20315 Certificate II in Telecommunications Technology • ICT30215 Certificate III in Telecommunications Digital Reception Technology • ICT30315 Certificate III in Telecommunications Rigging Installation • ICT30415 Certificate III in Telecommunications Network Build and Operate • CT30515 Certificate III in Telecommunications Technology • ICT41115 Certificate IV in Telecommunications Network Design • ICT41215 Certificate IV in Telecommunications Engineering Technology • ICT51015 Diploma of Telecommunications Engineering • ICT51115 Diploma of Telecommunications Planning and Design • ICT60615 Advanced Diploma of Telecommunications Network Engineering • ICT80615 Graduate Certificate in Telecommunications Network Engineering. **Skill sets** 19 skill sets.

		Units of competency
		• 239 units of competency were updated to meet the Standards for Training Packages.
		One new unit of competency:
		• ICTNWK617 Configure and manage a storage area network.
		Industry Skills Council upgrades
		Unit codes were corrected or updated in 26 qualifications from *ICT Information and Communications Technology Training Package* Version 1.
		Unit codes were corrected or updated in 27 skill sets from *ICT Information and Communications Technology Training Package* Version 1.
Version 1.0	March 2015	Primary release of restructured *ICT Information Communications Technology Training Package*.
		This release of *ICT Information Communications Technology Training Package* contains 32 qualifications, 27 skill sets and 417 native units of competency comprising 417 units updated to meet Standards for Training Packages) and 106 imported units.
		• ICT80115 Graduate Certificate in Information Technology and Strategic Management (updated to meet AQF Requirements)
		• ICT80215 Graduate Certificate in Information Technology Sustainability (updated to meet AQF Requirements)
		• ICT80415 Graduate Diploma of Telecommunications Network Engineering (updated to meet AQF Requirements)
		• ICT80315 Graduate Certificate in Telecommunications – added
		• ICT80515 Graduate Diploma of Telecommunications and Strategic Management – added.

List of AQF qualifications, skill sets and units of competency in the ICT Information and Communications Technology Training Package

The ICT Information and Communications Technology Training Package contains:

- 11 AQF-aligned qualifications
- 108 skill sets
- 650 native units of competency.

List of qualifications in the ICT Information and Communications Technology Training Package.

Qualifications in the ICT Information and Communications Technology Training Package (Version 9.0)	
Code	Title
ICT20120	Certificate II in Applied Digital Technologies
ICT20219	Certificate II in Telecommunications Network Build and Operation
ICT20319	Certificate II in Telecommunications Technology
ICT30120	Certificate III in Information Technology
ICT30419	Certificate III in Telecommunications Network Build and Operation
ICT30524	Certificate III in Telecommunications Technology
ICT40120	Certificate IV in Information Technology

List of skill sets in ICT Information and Communications Training Package.

Skill Sets in the ICT Information and Communications Technology Training Package (Version 9.0)	
Code	Title
ICTSS00077	Telecommunications Linesworker Copper Skill Set
ICTSS00078	Telecommunications Linesworker Fibre Skill Set
ICTSS00080	Copper Cable Jointer Skill Set
ICTSS00083	Underground Installations Skill Set
ICTSS00084	Basic Open Cabler Registration Skill Set
ICTSS00085	Basic Restricted Cabler Registration Skill Set

ICTSS00086	ACMA Advanced Cabler Registration Skill Set
ICTSS00087	Basic Technician Network Build and Operate Skill Set
ICTSS00091	Radio Technician Skill Set
ICTSS00092	Technical Help Desk Support Skill Set
ICTSS00093	Telecommunications Linesworker HFC Skill Set
ICTSS00094	Technician Fibre Skill Set
ICTSS00095	Fibre Splicer Skill Set
ICTSS00096	Technician Hybrid Fibre Coaxial Skill Set
ICTSS00097	Telecommunications Customer Service Technician – HFC Technician Skill Set
ICTSS00098	Network Technician HFC Skill Set
ICTSS00099	Cloud Design and Configuration Skill Set
ICTSS00100	Cloud Implementation and Maintenance Skill Set
ICTSS00101	Cyber Incident Response Skill Set
ICTSS00102	Cyber Incident Threat Detection and Prevention Skill Set
ICTSS00103	Cyber Security Strategy and Governance Skill Set
ICTSS00104	Data Analysis Skill Set
ICTSS00105	Internet of Things Developer Skill Set
ICTSS00106	Introductory Tools and Applications Skill Set
ICTSS00107	Introductory Help Desk Skill Set
ICTSS00108	Digital Skills for Small Business Skill Set
ICTSS00109	Entry to Tech Skill Set
ICTSS00110	Radio Frequency Skill Set
ICTSS00111	Optical Networking Skill Set
ICTSS00113	Telecommunications Networking Management Skill Set
ICTSS00114	Advanced Telecommunications Networking Skill Set

ICTSS00115	XG Cellular Network Infrastructure Rollout Skill Set
ICTSS00116	XG Cellular Network Implementation Skill Set
ICTSS00117	Cyber Security Insider Risks and Threats Skill Set
ICTSS00118	User Experience Design Skill Set
ICTSS00119	Advanced Data Analytics Skill Set
ICTSS00120	Artificial Intelligence Skill Set
ICTSS00121	Extended Reality Skill Set
ICTSS00122	Industrial Automation Skill Set
ICTSS00123	Software Automation Skill Set
ICTSS00124	Cloud Infrastructure Skill Set
ICTSS00125	Cloud Security Skill Set
ICTSS00126	Advanced Cyber Incident Threat Detection and Prevention Skill Set
ICTSS00127	Cloud Programmer Skill Set
ICTSS00128	Network Security and System Protection Skill Set
ICTSS00129	DevOps System Administration Skill Set
ICTSS00130	Intermediate Digital Skills for Small Business Skill Set
ICTSS00131	Introduction to Assistive Technologies Skill Set
ICTSS00132	Core Technical IT Skills for Introductory Roles Skill Set
ICTSS00133	Core Transferable IT Skills for Introductory Roles Skill Set
ICTSS00134	Database Development for Introductory Roles Skill Set
ICTSS00135	Database Maintenance for Introductory Roles Skill Set
ICTSS00136	Gaming Development for Introductory Roles Skill Set
ICTSS00137	Networking for Introductory Roles Skill Set
ICTSS00138	Programming Skills for Introductory Roles Skill Set
ICTSS00139	Systems Administration Support Skills for Introductory Roles Skill Set

ICTSS00140	Web Development for Introductory Roles Skill Set
ICTSS00141	Core Technical IT Skills for Intermediate Roles Skill Set
ICTSS00142	Core Transferable IT Skills for Intermediate Roles Skill Set
ICTSS00143	Networking Skills for Intermediate Roles Skill Set
ICTSS00144	Programming Skills for Intermediate Roles Skill Set
ICTSS00145	Back End Web Development for Intermediate Roles Skill Set
ICTSS00146	Business Analysis for Intermediate Roles Skill Set
ICTSS00147	Cloud Architecture for Intermediate Roles Skill Set
ICTSS00148	Cloud Engineering for Intermediate Roles Skill Set
ICTSS00149	Cyber Security for Intermediate Roles Skill Set
ICTSS00150	Database and Data Management for Intermediate Roles Skill Set
ICTSS00151	Front End Web Development for Intermediate Roles Skill Set
ICTSS00152	Game Art and Design for Intermediate Roles Skill Set
ICTSS00153	Game Programming for Intermediate Roles Skill Set
ICTSS00154	Systems Administration for Intermediate Roles Skill Set
ICTSS00155	Systems Analysis for Intermediate ICT Roles Skill Set
ICTSS00156	Telecommunications Network Engineering for Intermediate Roles Skill Set
ICTSS00157	Core Technical IT Skills for Advanced Roles Skill Set
ICTSS00158	Core Transferable IT Skills for Advanced Roles Skill Set
ICTSS00159	Data Management Information Skills for Advanced Roles Skill Set
ICTSS00160	Cyber Security for Advanced Roles Skill Set
ICTSS00161	Full Stack Web Development for Advanced Roles Skill Set
ICTSS00162	Programming Skills for Advanced Roles Skill Set
ICTSS00163	IT Strategy and Organisational Development for Advanced Roles Skill Set
ICTSS00164	Systems Development and Analysis for Advanced Roles Skill Set

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ICTSS00165	Telecommunications Network Engineering for Advanced Roles Skill Set
ICTSS00166	Application Development Specialist Skill Set
ICTSS00167	Basic Application Development Programmer Skill Set
ICTSS00168	Basic Web Development Specialist Skill Set
ICTSS00169	Certified Network Associate Technology Specialist Skill Set
ICTSS00170	Certified Network Professional Specialist - Voice and Wireless Skill Set
ICTSS00171	Security and Network Architect Specialist Skill Set
ICTSS00172	Certified Technology Specialist - Graphical User Interfaces Skill Set
ICTSS00173	Certified Web Design Specialist Skill Set
ICTSS00174	Hardware Technician Skill Set
ICTSS00175	Internetworking Systems Coordinator - Administrator Skill Set
ICTSS00176	Interactive Content Specialist Skill Set
ICTSS00177	System and Hardware Technician Skill Set
ICTSS00178	System and Network Plus Technician Skill Set
ICTSS00179	Virtualisation Specialist Skill Set
ICTSS00180	Visual Communications Specialist Skill Set
ICTSS00181	Website Administration Specialist Skill Set
ICTSS00182	Enterprise Desktop Virtualisation Specialist Skill Set
ICTSS00183	Enterprise Server Virtualisation Specialist Skill Set
ICTSS00184	Advanced ICT Sustainability Skill Set
ICTSS00185	Basic ICT Sustainability Skill Set
ICTSS00186	Civil Works - Installation of Pit and Pipe and FDH Skill Set
ICTSS00187	Commercial Digital Television Antenna Systems Installation Skill Set
ICTSS00188	Network Designer and Installation Skill Set
ICTSS00189	Digital Antenna System and Component Installation Skill Set

ICTSS00190	IP Convergence Installation in Small to Medium Networks Skill Set
ICTSS00191	Wireless LAN and IP Network Installation Skill Set

List of units of competency in ICT Information and Communications Technology Training Package.

Units of Competency in the ICT Information and Communications Technology Training Package (Version 9.0)	
Code	**Title**
ICTAII401	Identify opportunities to apply artificial intelligence, machine learning and deep learning
ICTAII501	Automate work tasks using machine learning
ICTAII502	Train and evaluate machine learning models
ICTAII503	Build natural language processing models and pipelines
ICTAUT401	Design business process automation solutions
ICTAUT402	Apply robotic desktop automation
ICTAUT403	Conduct software quality assurance testing
ICTAUT501	Manage robotic process automation
ICTAUT502	Evaluate automated industrial manufacturing processes
ICTBWN302	Install optical fibre splitters in fibre distribution hubs
ICTBWN303	Install lead-in module and cable for fibre to the premises
ICTBWN306	Use radio frequency measuring instruments
ICTBWN307	Use optical measuring instruments
ICTBWN308	Work safely on live optical fibre installations
ICTBWN309	Perform tests on optical communication system and components
ICTCBL205	Joint metallic conductor cable on customer premises
ICTCBL206	Alter services to existing cable system
ICTCBL210	Install a telecommunications service to a building

ICTCBL211	Install an above ground equipment enclosure
ICTCBL212	Erect aerial cable supports
ICTCBL219	Apply safe technical work practices for cabling registration when configuring an ADSL circuit
ICTCBL238	Install, maintain and modify customer premises communications cabling: ACMA Lift Rule
ICTCBL246	Install, maintain and modify customer premises communications cabling: ACMA Restricted
ICTCBL247	Install, maintain and modify customer premises communications cabling: ACMA Open Rule
ICTCBL248	Install and terminate hard-line coaxial cable
ICTCBL249	Haul underground cable for installation and maintenance work
ICTCBL250	Haul and fix aerial cable
ICTCBL251	Install aerial and underground cable lead-ins
ICTCBL252	Joint and terminate coaxial cable
ICTCBL253	Construct underground telecommunications infrastructure
ICTCBL254	Joint metallic conductor cable in access network
ICTCBL301	Install, terminate and certify structured cabling installation
ICTCBL303	Install and terminate coaxial cable
ICTCBL305	Hand over cable systems and equipment
ICTCBL306	Locate and identify cable system faults
ICTCBL311	Install systems and equipment on customer premises
ICTCBL313	Modify and cutover cable
ICTCBL314	Install network cable equipment
ICTCBL316	Install ribbon fibre cable in the FTTX distribution network
ICTCBL319	Rearrange large size copper cable
ICTCBL320	Jumper metallic conductor cable in the access network

ICTCBL322	Install, test and terminate optical fibre cable on customer premises
ICTCBL323	Test cables and systems on customer premises
ICTCBL324	Cut over new systems and equipment on customer premises
ICTCBL325	Maintain cable network
ICTCBL326	Cut over metallic conductor cable in the access network
ICTCBL329	Install underground cable for communications applications
ICTCBL330	Splice and terminate optical fibre cable for telecommunications projects
ICTCBL331	Conduct basic identification and fault-finding within cabling networks and customer equipment
ICTCBL332	Locate, identify and rectify copper cable faults
ICTCBL333	Install aerial cable for communications applications
ICTCBL334	Install underground enclosures and conduit
ICTCBL335	Construct aerial cable supports
ICTCBL336	Install and cut over metallic conductor cable to access network cabinet
ICTCBL401	Prepare design drawings and specification for a cable installation
ICTCBL403	Supervise cabling project
ICTCBL404	Test cable bearers
ICTCBL405	Remotely locate and identify cable network faults
ICTCLD301	Evaluate characteristics of cloud computing solutions and services
ICTCLD401	Configure cloud services
ICTCLD501	Develop cloud disaster recovery plans
ICTCLD502	Design and implement highly-available cloud infrastructure
ICTCLD503	Implement web-scale cloud infrastructure
ICTCLD504	Improve cloud-based infrastructure
ICTCLD505	Implement cloud infrastructure with code
ICTCLD506	Implement virtual network in cloud environments

ICTCLD507	Build and deploy resources on cloud platforms
ICTCLD508	Manage infrastructure in cloud environments
ICTCLD509	Manage cloud identity and access
ICTCLD510	Manage cloud threat detection systems
ICTCLD511	Protect cloud infrastructure and data
ICTCLD512	Respond to cloud security incidents
ICTCLD513	Develop cloud-based microservices architecture using containers
ICTCLD514	Create and test cloud-based serverless applications
ICTCLD515	Build and deploy cloud-based applications using CI and CD pipelines
ICTCLD601	Develop cloud computing strategies for businesses
ICTCLD602	Manage information security compliance of cloud service deployment
ICTCLD603	Design hybrid cloud-based network architectures
ICTCLD604	Manage data in cloud environments
ICTCMP201	Organise and monitor cabling to ensure compliance with regulatory and industry standards
ICTCMP203	Perform restricted customer premises broadband cabling work: ACMA Restricted Rule
ICTCMP502	Conduct radio communications site audits
ICTCYS401	Design and implement network security infrastructure for an organisation
ICTCYS402	Identify and confirm cyber security incidents
ICTCYS403	Plan and implement information security strategies for an organisation
ICTCYS404	Run vulnerability assessments for an organisation
ICTCYS405	Develop cyber security incident response plans
ICTCYS406	Respond to cyber security incidents
ICTCYS407	Gather, analyse and interpret threat data
ICTCYS408	Research and source cryptocurrency technologies for organisational needs

ICTCYS601	Create cyber security standards for organisations
ICTCYS602	Implement cyber security operations
ICTCYS603	Undertake penetration testing for organisations
ICTCYS604	Implement best practices for identity management
ICTCYS606	Evaluate an organisation's compliance with cyber security standards and law
ICTCYS607	Acquire digital forensic data
ICTCYS608	Perform cyber security risk assessments
ICTCYS609	Evaluate threats and vulnerabilities of IoT devices
ICTCYS610	Protect critical infrastructure for organisations
ICTCYS611	Configure security devices for organisations
ICTCYS612	Design and implement virtualised cyber security infrastructure for organisations
ICTCYS613	Utilise design methodologies for security architecture
ICTCYS614	Analyse cyber security insider risks and threats and devise recommendations
ICTCYS615	Detect and respond to cyber security insider risks and threats
ICTDAT401	Evaluate organisational compliance with data ethics legislation
ICTDAT402	Clean and verify data
ICTDAT501	Gather, analyse and verify data from different source inputs
ICTDAT502	Conduct significance tests
ICTDAT503	Use unsupervised learning for clustering
ICTDAT601	Develop data integration strategies
ICTDAT602	Review data lifecycles
ICTDAT603	Assess advanced data processes
ICTDBS407	Monitor physical database implementation
ICTDBS413	Determine database requirements
ICTDBS414	Complete database backup and restore

ICTDBS415	Build a database	
ICTDBS416	Create basic relational databases	
ICTDBS417	Identify and resolve common database performance problems	
ICTDBS418	Monitor and administer databases	
ICTDBS503	Create a data warehouse	
ICTDBS505	Monitor and improve knowledge management systems	
ICTDBS506	Design databases	
ICTDBS507	Integrate databases with websites	
ICTDBS604	Build data warehouses	
ICTDBS605	Develop knowledge management strategies	
ICTDBS606	Determine database functionality and scalability	
ICTDMT404	Create visual design components for digital media	
ICTDMT405	Produce interactive animations	
ICTDMT406	Produce and edit digital images	
1ICTDMT407	Incorporate video assets into media presentations	
ICTDRE301	Install digital reception equipment	
ICTDRE302	Locate and rectify digital reception equipment faults	
ICTDRE303	Install a complex digital reception system	
ICTDRE305	Develop integrated digital reception systems	
ICTDRE308	Install a cable broadband multi-dwelling unit system	
ICTDRE314	Design communications wiring systems for customer premises	
ICTDRE401	Integrate customer digital reception equipment	
ICTDRE402	Integrate data delivery modes	
ICTDSN401	Design digital user interfaces	
ICTDSN402	Develop digital user interfaces	

ICTDSN403	Apply innovative thinking and practices in digital environments
ICTEDU301	Train customers in new technology
ICTGAM304	Develop three-dimensional (3D) models for digital games
ICTGAM305	Apply simple textures and shading to three-dimensional (3D) models for digital games
ICTGAM306	Review and apply traditional animation principles
ICTGAM418	Use simple modelling for animation
ICTGAM420	Produce interactive games
ICTGAM421	Identify and apply games design and game play principles
ICTGAM422	Create design documents for interactive games
ICTGAM423	Apply artificial intelligence in game development
ICTGAM424	Develop story and content in digital games
ICTGAM425	Create visual design components in interactive games
ICTGAM426	Write narrative scripts for interactive games
ICTGAM427	Use 3-D software interface and toolsets
ICTGAM428	Create 3-D characters for interactive games
ICTGAM429	Develop 3-D components for interactive games
ICTGAM430	Design interactive media
ICTGAM431	Design and create 3-D digital models
ICTGAM432	Create audio for digital games
ICTGAM433	Prepare and complete image rendering processes
ICTGAM532	Create design concepts for digital games and 3-D media
ICTGAM533	Create complex 3-D interactive games
ICTGAM534	Manage interactive media productions
ICTGAM535	Develop complex 3-D software for games and interactive media
ICTGAM536	Design interactive 3-D applications for scientific and mathematical modelling

ICTGAM537	Prepare games for different platforms and delivery modes
ICTGAM538	Manage testing of games and interactive media
ICTGAM539	Create and implement designs for 3-D games environments
ICTGAM540	Design and create models for 3-D and digital effects environments
ICTGAM541	Design and create advanced particles, fluids and bodies for 3-D digital effects
ICTGAM542	Animate 3-D characters for digital games
ICTGAM543	Produce digital animation sequences
ICTGAM544	Animate physical attributes of models and elements
ICTGAM545	Manage technical art and rigging in 3-D animations
ICTGAM546	Create and combine 3-D digital games and components
ICTGAM547	Create interactive 3-D environments for digital games
ICTGAM548	Complete digital editing for 3-D and digital effects environments
ICTGAM549	Collaborate in design of 3-D game levels and environments
ICTGAM550	Integrate multiple data sources into interactive 3-D environments
ICTGAM551	Apply digital texturing for the 3-D environment in digital games
ICTGAM552	Create complex 3-D characters for games
ICTGAM553	Integrate database with online games
ICTGAM554	Create games for mobile devices
ICTGAM555	Analyse business opportunities in the digital games' environments
ICTGAM556	Develop and implement physics in 3-D digital games
ICTGAM557	Complete compositing to create elements for 3-D and digital effects environments
ICTICT213	Use computer operating systems and hardware
ICTICT214	Operate application software packages
ICTICT215	Operate digital media technology packages
ICTICT216	Design and create basic organisational documents

ICTICT219	Interact and resolve queries with ICT clients
ICTICT221	Identify and use specific industry standard technologies
ICTICT222	Research and share ICT solutions for Indigenous users
ICTICT223	Install software applications
ICTICT224	Integrate commercial computing packages
ICTICT225	Operate accounting applications
ICTICT226	Operate simple database applications
ICTICT309	Create ICT user documentation
ICTICT310	Identify and use industry specific technologies
ICTICT311	Customise packaged software applications
ICTICT312	Use advanced features of applications
ICTICT313	Identify IP, ethics and privacy policies in ICT environments
ICTICT314	Connect internal hardware components
ICTICT315	Implement system software changes
ICTICT316	Implement new technology
ICTICT317	Maintain standard operating environments
ICTICT318	Validate test cases and develop proof of concepts
ICTICT401	Determine and confirm client business requirements
ICTICT405	Develop detailed technical design
ICTICT408	Create technical documentation
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
ICTICT427	Identify, evaluate and apply current industry-specific technologies to meet organisational needs

ICTICT428	Select cloud storage solutions
ICTICT429	Determine and confirm client business requirements
ICTICT430	Apply software development methodologies
ICTICT431	Use online tools for learning
ICTICT432	Develop detailed technical design
ICTICT433	Build graphical user interfaces
ICTICT434	Maintain website information standards
ICTICT435	Create technical documentation
ICTICT436	Develop macros and templates for clients using standard products
ICTICT437	Conduct post-implementation ICT system reviews
ICTICT438	Select, configure and deploy software and hardware testing tools
ICTICT440	Develop service level agreements
ICTICT441	Provide one-to-one instructions
ICTICT443	Work collaboratively in the ICT industry
ICTICT444	Develop client user interfaces
ICTICT445	Connect and configure devices and hardware components
ICTICT446	Apply ICT service management principles
ICTICT447	Work effectively in agile environments
ICTICT448	Prepare electronic portfolios of work
ICTICT449	Use version control systems in development environments
ICTICT450	Identify and use applications for a distributed ledger
ICTICT451	Comply with IP, ethics and privacy policies in ICT environments
ICTICT452	Support the implementation of assistive technologies
ICTICT453	Evaluate accessibility of organisational systems, programs and software
ICTICT454	Assess organisational systems using assistive technologies

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ICTICT517	Match ICT needs with the strategic direction of the organisation
ICTICT518	Research and review hardware technology options for organisations
ICTICT519	Develop detailed component specifications from project specifications
ICTICT520	Confirm transition strategy for new systems
ICTICT521	Select new technology supported business model
ICTICT522	Evaluate vendor products and equipment
ICTICT523	Gather data to identify business requirements
ICTICT524	Determine ICT strategies and solutions for organisations
ICTICT525	Identify and manage the implementation of industry specific technologies
ICTICT526	Verify client business requirements
ICTICT527	Develop and maintain blockchain solutions
ICTICT528	Deploy smart contracts
ICTICT529	Organise and lead agile projects
ICTICT530	Design user experience solutions
ICTICT531	Test network using virtual instruments
ICTICT532	Apply IP, ethics and privacy in ICT environments
ICTICT533	Conduct quality audit of IT system design specifications
ICTICT608	Interact with clients on a business level
ICTICT611	Develop ICT strategic business plans
ICTICT612	Develop contracts and manage contract performance
ICTICT613	Manage the use of development methodologies
ICTICT614	Identify and implement business innovation
ICTICT615	Implement knowledge management strategies
ICTICT616	Develop communities of practice
ICTICT617	Lead the evaluation and implementation of current industry specific technologies

ICTICT618	Manage IP, ethics and privacy in ICT environments
ICTICT818	Develop knowledge management strategies
ICTICT819	Lead analysis of information and communications technology business strategy
ICTICT822	Manage automated ICT system applications
ICTIOT501	Install IoT devices and networks
ICTIOT502	Program IoT devices
ICTIOT503	Design and test IoT devices and networks
ICTNPL401	Apply business acumen to network planning
ICTNPL402	Plan the deployment of access network architectures
ICTNPL409	Apply knowledge of regulation and legislation for the telecommunications industry
ICTNPL410	Plan the telecommunications access network for an estate
ICTNPL412	Apply business acumen to network planning
ICTNPL413	Evaluate networking regulations and legislation for the telecommunications industry
ICTNWK307	Provide network systems administration
ICTNWK308	Determine and action network problems
ICTNWK309	Configure and administer network operating systems
ICTNWK310	Administer network peripherals
ICTNWK311	Install and test network protocols
ICTNWK409	Create scripts for networking
ICTNWK419	Identify and use current virtualisation technologies
ICTNWK420	Install and configure virtual machines
ICTNWK421	Install, configure and test network security
ICTNWK422	Install and manage servers
ICTNWK423	Manage network and data integrity

ICTNWK424	Install and operate small enterprise branch networks
ICTNWK425	Build small wireless local area networks
ICTNWK426	Install and configure client-server applications and services
ICTNWK427	Configure desktop environments
ICTNWK428	Create scripts for networking
ICTNWK429	Install hardware to networks
ICTNWK430	Deploy software to networked computers
ICTNWK431	Create network documentation
ICTNWK432	Build an enterprise wireless network
ICTNWK433	Install backbone technologies in a local area network
ICTNWK434	Identify and implement industry standard virtualisation technologies
ICTNWK435	Create secure virtual private networks
ICTNWK529	Install and manage complex ICT networks
ICTNWK536	Plan, implement and test enterprise communication solutions
ICTNWK537	Implement secure encryption technologies
ICTNWK538	Install and maintain valid authentication processes
ICTNWK539	Design and implement integrated server solutions
ICTNWK540	Design, build and test network servers
ICTNWK541	Configure, verify and troubleshoot WAN links and IP services
ICTNWK542	Install, operate and troubleshoot medium enterprise routers
ICTNWK543	Install, operate and troubleshoot medium enterprise switches
ICTNWK544	Design and implement a security perimeter for ICT networks
ICTNWK545	Develop, implement and evaluate systems and applications security
ICTNWK546	Manage network security
ICTNWK547	Manage system security on operational systems

ICTNWK548	Model preferred system solutions
ICTNWK549	Design ICT security frameworks
ICTNWK550	Design ICT system security controls
ICTNWK551	Build decks using wireless markup language
ICTNWK552	Install and configure network access storage devices
ICTNWK553	Configure enterprise virtual computing environments
ICTNWK554	Manage enterprise virtual computing environments
ICTNWK555	Determine best-fit topologies for local networks
ICTNWK556	Identify and resolve network problems
ICTNWK557	Configure and manage advanced virtual computing environments
ICTNWK558	Monitor and troubleshoot virtual computing environments
ICTNWK559	Install an enterprise virtual computing environment
ICTNWK560	Determine best-fit topologies for wide area networks
ICTNWK561	Design enterprise wireless local area networks
ICTNWK562	Configure internet gateways
ICTNWK612	Plan and manage troubleshooting advanced integrated IP networks
ICTNWK615	Design and configure desktop virtualisation
ICTNWK618	Design and implement a security system
ICTNWK619	Plan, configure and test advanced server-based security
ICTNWK620	Design and implement wireless network security
ICTNWK621	Configure network devices for a secure network infrastructure
ICTNWK622	Configure and manage intrusion prevention system on network sensors
ICTNWK623	Manage ICT security
ICTNWK624	Configure advanced internetwork routing solutions
ICTNWK625	Plan and configure advanced internetwork switching solutions

ICTNWK627	Implement voice applications over secure wireless networks
ICTNWK628	Design and build integrated VoIP networks
ICTNWK629	Configure and manage storage area networks
ICTOPN403	Prepare activity plans and specifications for a fibre to the x installation
ICTOPN404	Test optical communications systems and components
ICTOPN405	Install and test a dense wavelength division multiplexing system
ICTOPN507	Plan and configure dense wavelength division multiplexing optical networks
ICTOPN508	Perform acceptance and commissioning tests on optical networks
ICTOPN509	Plan for optical system upgrades
ICTOPN510	Test and commission dense wavelength division multiplexing transmission systems
ICTOPN511	Test performance of specialised optical devices
ICTOPN512	Analyse and integrate specialised optical devices
ICTOPN605	Manage optical ethernet transmission
ICTOPN606	Manage dense wavelength division multiplexing transmission systems
ICTOPN607	Design dense wavelength division multiplexing systems
ICTOPN608	Analyse optical transmission systems
ICTPMG201	Prepare site for support installation
ICTPMG202	Plan, organise and undertake work activities
ICTPMG301	Contribute as part of an IT project management team
ICTPMG402	Schedule installation of customer premises equipment
ICTPMG403	Manage the delivery of network infrastructure
ICTPMG411	Support small scale ICT projects
ICTPMG503	Prepare a project brief
ICTPMG505	Manage ICT projects
ICTPMG506	Prepare network project briefs

ICTPMG612	Manage ICT project initiation
ICTPMG613	Manage ICT project planning
ICTPMG614	Manage ICT project delivery
ICTPMG615	Manage ICT project closure
ICTPMG616	Manage ICT project systems implementation
ICTPMG617	Plan and direct complex ICT projects
ICTPRG302	Apply introductory programming techniques
ICTPRG429	Maintain open-source code programs
ICTPRG430	Apply introductory object-oriented language skills
ICTPRG431	Apply query language in relational databases
ICTPRG432	Develop data-driven applications
ICTPRG433	Test software developments
ICTPRG434	Automate processes
ICTPRG435	Write scripts for software applications
ICTPRG436	Develop mobile applications
ICTPRG437	Build a user interface
ICTPRG438	Configure and maintain databases
ICTPRG439	Use pre-existing components
ICTPRG440	Apply introductory programming skills in different languages
ICTPRG441	Apply skills in object-oriented design
ICTPRG442	Apply mathematical techniques for software development
ICTPRG443	Apply intermediate programming skills in different languages
ICTPRG444	Analyse software requirements
ICTPRG446	Prepare software development review
ICTPRG447	Use extensible markup language

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ICTPRG530	Manage projects using software management tools
ICTPRG531	Prepare for application development using current methods
ICTPRG532	Apply advanced object-oriented language skills
ICTPRG533	Debug and monitor applications
ICTPRG534	Deploy applications to production environments
ICTPRG535	Build advanced user interfaces
ICTPRG536	Design application architecture
ICTPRG537	Implement security for applications
ICTPRG538	Create mashups
ICTPRG540	Maintain custom software
ICTPRG541	Monitor and support data conversion to new ICT systems
ICTPRG542	Review developed software
ICTPRG543	Develop integration blueprint for ICT systems
ICTPRG544	Install, test and evaluate pilot version of ICT systems
ICTPRG545	Monitor system pilots
ICTPRG546	Validate application designs against specifications
ICTPRG547	Apply advanced programming skills in another language
ICTPRG548	Develop high-level object-oriented class specifications
ICTPRG549	Apply intermediate object-oriented language skills
ICTPRG550	Perform ICT data conversions
ICTPRG551	Apply testing techniques for software development
ICTPRG553	Create and develop REST APIs
ICTPRG554	Manage data persistence using noSQL data stores
ICTPRG555	Implement object relational mapping framework for data persistence
ICTPRG556	Implement and use a model view controller framework

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ICTPRG557	Develop applications using agile methods
ICTPRG603	Develop advanced mobile multi-touch applications
ICTPRG605	Manage development of technical solutions from business specifications
ICTPRG614	Create cloud computing services
ICTRFN201	Install a satellite antenna
ICTRFN202	Install a terrestrial antenna
ICTRFN301	Install a radio communications antenna and feedline
ICTRFN304	Construct and test a radio communications device
ICTRFN305	Operate and maintain radio communications technical instruments and field equipment
ICTRFN402	Select antenna system for radio communications
ICTRFN405	Install radio communications base station equipment
ICTRFN406	Maintain hybrid fibre coaxial broadband cable network
ICTRFN407	Conduct radio frequency measurements
ICTRFN502	Test and measure cellular phone and network equipment performance
ICTRFN504	Test cellular handset enhancements and international roaming agreements
ICTRFN505	Test and measure cellular phone and network equipment performance
ICTRFN506	Evaluate radio frequency signal coverage plots
ICTRFN603	Monitor the capacity of and recommend changes to cellular mobile networks
ICTRFN804	Produce radio link budgets
ICTRFN805	Analyse cellular mobile network systems
ICTRFN806	Analyse satellite communications systems
ICTSAD402	Develop and present ICT feasibility reports
ICTSAD501	Model data objects
ICTSAD502	Model data processes
ICTSAD507	Design and implement quality assurance processes for business solutions

ICTSAD508	Develop technical requirements for business solutions
ICTSAD509	Produce ICT feasibility reports
ICTSAD510	Manage risks when implementing new technologies
ICTSAD604	Manage and communicate ICT solutions
ICTSAD608	Perform ICT-focused enterprise analysis
ICTSAD609	Plan and monitor business analysis activities in an ICT environment
ICTSAD610	Analyse stakeholder requirements
ICTSAD611	Manage assessment and validation of ICT solutions
ICTSAD612	Implement and maintain uses of containerisation
ICTSAD613	Install and configure container orchestration services
ICTSAD614	Lead ICT requirements elicitation
ICTSAS210	Update and maintain hardware, software and documentation inventories
ICTSAS211	Develop solutions for basic ICT malfunctions and problems
ICTSAS212	Record the requirements of client support requests
ICTSAS213	Maintain the integrity of ICT systems
ICTSAS214	Protect devices from spam and destructive software
ICTSAS215	Protect and secure information assets
ICTSAS216	Maintain ICT equipment and replace consumables
ICTSAS217	Connect a home based local wireless network
ICTSAS218	Obtain and connect hardware peripherals
ICTSAS305	Provide ICT advice to clients
ICTSAS308	Run standard diagnostic tests
ICTSAS309	Maintain and repair ICT equipment and software
ICTSAS310	Install, configure and secure a small office or home office network
ICTSAD612	Implement and maintain uses of containerisation

ICTSAS311	Maintain computer hardware
ICTSAS312	Provide basic system administration
ICTSAS428	Hand over ICT system components to clients
ICTSAS432	Identify and resolve client ICT problems
ICTSAS433	Update ICT client support procedures and assist with policy development
ICTSAS434	Action change requests and present updated ICT system to clients
ICTSAS435	Resolve system faults on a live system
ICTSAS436	Evaluate ICT system status
ICTSAS437	Optimise ICT system performance
ICTSAS438	Implement maintenance procedures
ICTSAS439	Analyse ICT system capacity and implement enhancements
ICTSAS440	Monitor and administer security of ICT systems
ICTSAS441	Support ICT system software
ICTSAS442	Provide first-level remote help desk support
ICTSAS443	Support operating system users and troubleshoot applications
ICTSAS444	Repair operating systems boot up procedures
ICTSAS445	Configure and troubleshoot operating system software
ICTSAS446	Fault find and troubleshoot ICT equipment, hardware and software problems
ICTSAS502	Establish and maintain client user liaison
ICTSAS506	Update ICT system operational procedures
ICTSAS512	Review and manage delivery of maintenance services
ICTSAS518	Install and upgrade operating systems
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
ICTSAS524	Develop, implement and evaluate an incident response plan
ICTSAS525	Develop and conduct client acceptance tests
ICTSAS526	Review and update disaster recovery and contingency plans
ICTSAS527	Manage client problems
ICTSAS528	Review and develop ICT maintenance strategies
ICTSAS529	Prioritise ICT change requests
ICTSAS530	Use network tools
ICTSAS602	Implement change management processes
ICTSMB401	Set up and operate a contractor business
ICTSUS402	Install and test power saving hardware
ICTSUS403	Install and test power management software
ICTSUS404	Install thin client applications for power over ethernet
ICTSUS502	Install and test virtual infrastructure
ICTSUS603	Integrate sustainability in ICT planning and design projects
ICTSUS604	Prepare business cases for sustainability and competitive advantage in ICT projects
ICTSUS811	Conduct and manage life cycle assessments for sustainability
ICTSUS812	Lead applied research in ICT sustainability
ICTTCR203	Use safe rigging practices to climb and perform rescues on telecommunications network structures
ICTTEN202	Use hand and power tools
ICTTEN203	Install and configure a home or small office network
ICTTEN204	Install and configure a small to medium business network
ICTTEN205	Build and maintain a secure network

ICTTEN206	Operate new media software packages
ICTTEN207	Install and test internet protocol devices in convergence networks
ICTTEN208	Use electrical skills when working with telecommunications networks
ICTTEN210	Install underground telecommunications infrastructure
ICTTEN211	Work effectively in a telecommunications network environment
ICTTEN301	Provide infrastructure for telecommunications network equipment
ICTTEN310	Remove and replace electronic circuit boards in carrier equipment
ICTTEN312	Install telecommunications network equipment
ICTTEN313	Work on and resolve recurrent network faults
ICTTEN315	Determine and apply technologies within a telecommunications system
ICTTEN316	Conduct basic tests and analyses of telecommunications copper cabling
ICTTEN317	Locate, identify and rectify telecommunications network faults
ICTTEN318	Inspect, clean and handle optical fibre cable and connectors
ICTTEN320	Commission an electronic unit
ICTTEN321	Maintain an electronic system
ICTTEN322	Provide infrastructure for telecommunications network customer equipment
ICTTEN402	Estimate and quote for customer telecommunications equipment installation
ICTTEN403	Assign a transmission path
ICTTEN404	Install and configure a wireless mesh network
ICTTEN406	Effect changes to existing customer premises equipment systems and equipment
ICTTEN408	Complete equipment and software upgrades
ICTTEN409	Commission an electronic system
ICTTEN410	Locate, diagnose and rectify faults
ICTTEN411	Monitor, analyse and action telecommunications network alarms
ICTTEN412	Undertake routine maintenance of the telecommunications network

ICTTEN413	Undertake remote diagnosis and repair of network faults
ICTTEN414	Repair telecommunication system faults
ICTTEN415	Install and configure internet protocol TV in a home network
ICTTEN416	Install, configure and test an internet protocol network
ICTTEN417	Install, configure and test a router
ICTTEN418	Install and test a radio frequency identification system
ICTTEN419	Implement and troubleshoot enterprise routers and switches
ICTTEN420	Design, install and configure an internetwork
ICTTEN421	Apply advanced routing protocols to network design
ICTTEN422	Configure and troubleshoot advanced network switching
ICTTEN423	Install and maintain a wide area network
ICTTEN425	Design, install and configure a customer smart technology network
ICTTEN426	Design network projects
ICTTEN427	Conduct site surveys to identify carrier installation requirements
ICTTEN428	Prepare design drawings and specification for telecommunications installations
ICTTEN429	Estimate and quote for carrier telecommunications equipment installations
ICTTEN432	Identify requirements for customer telecommunications equipment
ICTTEN433	Install configuration programs on PC based customer equipment
ICTTEN434	Install, configure and test internet protocol networks
ICTTEN435	Solve electrical-based telecommunications circuitry and cabling problems
ICTTEN519	Design network building projects
ICTTEN520	Commission network equipment
ICTTEN521	Integrate network systems and equipment
ICTTEN522	Cut over new and replacement network equipment
ICTTEN523	Locate, diagnose and rectify complex system equipment faults

ICTTEN524	Diagnose and organise repair of complex equipment faults
ICTTEN525	Install, configure and test local area network switches
ICTTEN526	Dimension and design a radio frequency identification system
ICTTEN527	Plan wireless mesh networks
ICTTEN613	Assess integration of international network equipment into Australian networks
ICTTEN614	Conduct network system optimisation and administration
ICTTEN615	Manage network traffic
ICTTEN616	Rectify client services following network outages and faults
ICTTEN617	Manage common channel signalling networks
ICTTEN618	Analyse and organise repair of highly complex networks
ICTTEN619	Test new software and hardware releases
ICTTEN620	Produce and evaluate architecture designs for convergent cellular mobile networks
ICTTEN621	Design and configure IP-MPLS networks with virtual private network tunnelling
ICTTEN622	Produce ICT network architecture designs
ICTTEN623	Design and manage internet protocol TV in a service provider network
ICTTEN817	Plan transmission networks
ICTTEN818	Align systems with product and technology strategy
ICTTEN819	Translate domain and solution architectures into platform requirements and designs
ICTTEN820	Manage end to end architectural solutions across multiple domains
ICTTEN821	Manage solution architecture and impacts
ICTTEN822	Manage application layer solutions
ICTTEN823	Manage voice, data and internet protocol network solutions
ICTTEN824	Manage network testing strategies

ICTTEN825	Investigate applications of cloud networks in network switching
ICTTEN826	Evaluate and apply digital signal processing to communication systems
ICTTEN827	Produce engineering solutions
ICTTEN828	Manage development and application of testing artefacts
ICTWEB304	Build simple web pages
ICTWEB305	Produce digital images for the web
ICTWEB306	Develop web presence using social media
ICTWEB430	Produce server-side script for dynamic web pages
ICTWEB431	Create and style simple markup language documents
ICTWEB432	Design website layouts
ICTWEB433	Confirm accessibility of websites
ICTWEB434	Transfer content to websites
ICTWEB435	Maintain website performance
ICTWEB436	Monitor traffic and compile website traffic reports
ICTWEB437	Create website testing procedures
ICTWEB438	Conduct operational acceptance tests of websites
ICTWEB439	Confirm basic website security
ICTWEB440	Use web authoring tools
ICTWEB441	Produce basic client-side script
ICTWEB442	Produce interactive web animation
ICTWEB443	Implement search engine optimisations
ICTWEB444	Create responsive website layouts
ICTWEB445	Implement content management systems
ICTWEB446	Integrate social web technologies
ICTWEB447	Build basic website using development software and ICT tools

ICTWEB448	Confirm website content meets technical protocols and standards
ICTWEB449	Confirm website access and useability
ICTWEB450	Evaluate and select a web hosting service
ICTWEB451	Apply structured query language in relational databases
ICTWEB452	Create a markup language document
ICTWEB453	Optimise websites for mobile devices
ICTWEB513	Build dynamic websites
ICTWEB514	Create dynamic web pages
ICTWEB517	Create web-based programs
ICTWEB518	Build a document using extensible markup language
ICTWEB519	Develop complex web page layouts
ICTWEB520	Develop complex cascading style sheets
ICTWEB521	Customise complex ICT content management systems
ICTWEB522	Develop website information architecture
ICTWEB523	Manage transactions using site server tools
ICTWEB524	Analyse information and assign meta tags
ICTWEB525	Implement quality assurance process for websites
ICTWEB526	Implement and use web services
ICTWEB527	Research and apply emerging web technology trends
ICTWHS201	Provide telecommunications services safely on roofs
ICTWHS202	Work safely in a radio frequency electromagnetic radiation environment
ICTWHS204	Follow work health and safety and environmental policy and procedures
ICTWHS205	Work safely near power infrastructure at a telecommunications workplace
ICTWOR202	Work effectively in the digital and telecommunications industry
ICTWOR301	Organise resources

ICTWOR302	Organise material supply
ICTWOR303	Schedule resources
ICTWOR304	Manage spare parts
ICTWOR305	Supervise worksite activities
ICTWOR306	Resolve technical enquiries using multiple information systems
ICTWOR307	Collect and analyse technical information
ICTWOR308	Provide customer service to telecommunications customers
ICTWOR401	Undertake a civil site survey
ICTXRE401	Apply augmented reality solutions in organisations
ICTXRE402	Apply virtual reality solutions in organisations
ICTXRE403	Design mixed reality solutions

Mapping to previous version of the training package

Mapping information can be useful for delivery and assessment as it:

- explains the extent of changes to assist users in identifying how previous training materials can be adapted.
- shows whether the outcomes of the previous and current versions are equivalent or not equivalent.
- shows newly created components as well as any components deleted from the training package.

Key to mapping tables below		
E	Equivalent	Where the workplace outcomes of the superseded and superseding training package components are equivalent.
NE	Not equivalent	Where a training package component is superseded, and the workplace outcome of the component has changed.
NC	Newly created	Where the training package component has been created to address an emerging skill or task required by industry.
D	Deleted	Where a training package component is deleted as the skill or task is no longer required by industry.

Qualification mapping information, including an equivalence table linking old to new qualification.

Qualification mapping

The table below maps those ICT Information and Communications Technology Training Package qualifications affected by the update from Version 8.1 to Version 9.0.

Qualification mapping information: Version 8.1 to Version 9.0			
Code and title ICT TP Version 8.1	Code and title ICT TP Version 9.0	Comments	Equivalence to previous
ICT30519 Certificate III in Telecommunications Technology	*ICT30524 Certificate III in Telecommunications Technology*	- Elective unit list updated. - The following two units added to the Group J Telecommunications Rigging specialisation: - CPCCLDG3001 Licence to perform dogging. - CPCCLRG3001 - Licence to perform rigging basic level.	Equivalent

		Packaging rules for the *Group J Telecommunications Rigging* specialisation updated.	

No further qualifications were created, deleted or changed in the update from Version 8.1 to Version 9.0. Those qualifications not included in the mapping table above are listed in the 'Qualifications in the ICT Information and Communications Technology Training Package' table.

Skill sets mapping information, including an equivalence table linking old to new units of competency.

Skill Sets mapping

The table below maps those ICT Information and Communications Technology Training Package qualifications affected by the update from Version 8.1 to Version 9.0.

Skills Sets mapping information: Version 8.1 to Version 9.0			
Code and title ICT TP Version 8.1	Code and title ICT TP Version 9.0	Comments	Equivalence to previous
Nil			

Unit mapping information, including an equivalence table linking old to new units of competency.

Unit of Competency mapping

The table below maps those ICT Information and Communications Technology Training Package unit of competency affected by the update from Version 8.1 to Version 9.0.

Unit of Competency mapping information: Version 8.1 to Version 9.0			
Code and title ICT TP Version 8.1	Code and title ICT TP Version 9.0	Comments	Equivalence to previous
ICTCBL247 - Install, maintain, and modify customer premises communications cabling (Release 2)	ICTCBL247 - Install, maintain, and modify customer premises communications cabling (Release 3)	• Assessment requirements, Knowledge Evidence list updated to include the current legislative reference: ○ *Communications Alliance Standards AS/CA S009 Installation Requirements for customer cabling (Wiring Rules).*	Equivalent

No further units of competency were created, deleted or changed in the update from Version 8.1 to Version 9.0. Those qualifications not included in the mapping table above are listed in the 'Qualifications in the ICT Information and Communications Technology Training Package' table.

List of imported and pre-requisite units in the Training Package.

Imported units in ICT Training Package

A range of units of competency has been imported into the ICT Information and Communications Technology Training Package to provide greater flexibility, choice and transferability of skills within the industry.

Imported units of competency in the ICT Information and Communications Technology Training Package Version 9.0		
Code	Title	Host Training Package
BSBCRT201	Develop and apply thinking and problem solving skills	BSB Business Services
BSBCRT301	Develop and extend critical and creative thinking skills	BSB Business Services
BSBCRT404	Apply advanced critical thinking to work processes	BSB Business Services
BSBCRT411	Apply critical thinking to work practices	BSB Business Services
BSBCRT512	Originate and develop concepts	BSB Business Services
BSBCRT611	Apply critical thinking for complex problem solving	BSB Business Services
BSBCUS201	Deliver a service to customers	BSB Business Services
BSBCUS402	Address customer needs	BSB Business Services
BSBDES401	Generate design solutions	BSB Business Services
BSBDES402	Interpret and respond to a design brief	BSB Business Services
BSBDES403	Develop and extend design skills and practice	BSB Business Services
BSBDES501	Implement design solutions	BSB Business Services
BSBDES502	Establish, negotiate and refine a design brief	BSB Business Services
BSBESB301	Investigate business opportunities	BSB Business Services
BSBESB305	Address compliance requirements for new business ventures	BSB Business Services
BSBESB402	Establish legal and risk management requirements of new business ventures	BSB Business Services

BSBESB406	Establish operational strategies and procedures for new business ventures	BSB Business Services
BSBINS201	Process and maintain workplace information	BSB Business Services
BSBITU211	Produce digital text documents	BSB Business Services
BSBLDR402	Lead effective workplace relationships	BSB Business Services
BSBLDR414	Lead team effectiveness	BSB Business Services
BSBLDR523	Lead and manage effective workplace relationships	BSB Business Services
BSBLDR601	Lead and manage organisational change	BSB Business Services
BSBMGT401	Show leadership in the workplace	BSB Business Services
BSBOPS201	Work effectively in business environments	BSB Business Services
BSBOPS202	Engage with customers	BSB Business Services
BSBOPS203	Deliver a service to customers	BSB Business Services
BSBOPS404	Implement customer service strategies	BSB Business Services
BSBPEF201	Support personal wellbeing in the workplace	BSB Business Services
BSBPEF202	Plan and apply time management	BSB Business Services
BSBPEF402	Develop personal work priorities	BSB Business Services
BSBPMG430	Undertake project work	BSB Business Services
BSBPMG530	Manage project scope	BSB Business Services
BSBPMG532	Manage project quality	BSB Business Services
BSBPMG536	Manage project risk	BSB Business Services
BSBPMG537	Manage project procurement	BSB Business Services
BSBPMG539	Manage project governance	BSB Business Services
BSBSMB305	Comply with regulatory, taxation and insurance requirements for the micro business	BSB Business Services
BSBSMB306	Plan a home based business	BSB Business Services
BSBSMB401	Establish legal and risk management requirements of small business	BSB Business Services
BSBSMB405	Monitor and manage small business operations	BSB Business Services
BSBSMB407	Manage a small team	BSB Business Services
BSBSTR601	Manage innovation and continuous improvement	BSB Business Services

BSBSUS201	Participate in environmentally sustainable work practices	BSB Business Services
BSBSUS211	Participate in sustainable work practices	BSB Business Services
BSBSUS401	Implement and monitor environmentally sustainable work practices	BSB Business Services
BSBSUS411	Implement and monitor environmentally sustainable work practices	BSB Business Services
BSBSUS511	Develop workplace policies and procedures for sustainability	BSB Business Services
BSBTEC101	Operate digital devices	BSB Business Services
BSBTEC201	Implement an environmental management plan	BSB Business Services
BSBTEC201	Use business software applications	BSB Business Services
BSBTEC202	Use digital technologies to communicate in a work environment	BSB Business Services
BSBTEC203	Research using the internet	BSB Business Services
BSBTEC301	Design and produce business documents	BSB Business Services
BSBTEC302	Design and produce spreadsheets	BSB Business Services
BSBTEC303	Create electronic presentations	BSB Business Services
BSBTEC405	Review and maintain organisation's digital presence	BSB Business Services
BSBTEC501	Develop and implement an e-commerce strategy	BSB Business Services
BSBTWK201	Work effectively with others	BSB Business Services
BSBTWK502	Manage team effectiveness	BSB Business Services
BSBWHS211	Contribute to the health and safety of self and others	BSB Business Services
BSBXCS301	Protect own personal online profile from cyber security threats	BSB Business Services
BSBXCS302	Identify and report online security threats	BSB Business Services
BSBXCS303	Securely manage personally identifiable information and workplace information	BSB Business Services
BSBXCS401	Maintain security of digital devices	BSB Business Services
BSBXCS402	Promote workplace cyber security awareness and best practices	BSB Business Services
BSBXCS403	Contribute to cyber security threat assessments	BSB Business Services

BSBXCS404	Contribute to cyber security risk management	BSB Business Services
BSBXCS405	Contribute to cyber security incident responses	BSB Business Services
BSBXTW301	Work in a team	BSB Business Services
BSBXTW401	Lead and facilitate a team	BSB Business Services
CPCCBC4004	Identify and produce estimated costs for building and construction projects	CPC Construction, Plumbing and Services
CPCCCM2007	Use explosive power tools	CPC Construction, Plumbing and Services
CPCCDE3014	Remove non-friable asbestos	CPC Construction, Plumbing and Services
CPCCDE3014A	Remove non-friable asbestos	CPC Construction, Plumbing and Services
CPCCLDG3001	Licence to perform dogging	CPC Construction, Plumbing and Services
CPCCLRG3001	Licence to perform rigging basic level	CPC Construction, Plumbing and Services
CPCCOHS1001A	Work safely in the construction industry	CPC Construction, Plumbing and Services
CPCCWHS1001	Prepare to work safely in the construction industry	CPC Construction, Plumbing and Services
CPCCWHS2001	Apply WHS requirements, policies and procedures in the construction industry	CPC Construction, Plumbing and Services
CPCPCM2043A	Carry out WHS requirements	CPC Construction, Plumbing and Services
CPPSEC3124	Prepare and present evidence in court	CPP Property Services
CPPSEC5003	Assess security risk management options	CPP Property Services
CPPSEC5004	Develop security risk management plans	CPP Property Services
CPPSEC5005	Implement security risk management plans	CPP Property Services
CPPSEC5006	Develop strategies to implement advanced technology security systems	CPP Property Services
CUAANM301	Create 2D digital animations	CUA Creative Arts and Culture
CUAANM302	Create 3D digital animations	CUA Creative Arts and Culture

CUAANM412	Create digital visual effects	CUA Creative Arts and Culture
CUACAM311	Shoot material for screen productions	CUA Creative Arts and Culture
CUADIG211	Maintain interactive content	CUA Creative Arts and Culture
CUADIG212	Develop digital imaging skills	CUA Creative Arts and Culture
CUADIG303	Produce and prepare photo images	CUA Creative Arts and Culture
CUADIG304	Create visual design components	CUA Creative Arts and Culture
CUADIG311	Prepare video assets	CUA Creative Arts and Culture
CUADIG312	Author interactive sequences	CUA Creative Arts and Culture
CUADIG401	Author interactive media	CUA Creative Arts and Culture
CUADIG512	Design digital applications	CUA Creative Arts and Culture
CUADIG513	Design e-learning resources	CUA Creative Arts and Culture
CUADIG517	Design digital simulations	CUA Creative Arts and Culture
CUAPHI524	Prepare digital images for pre-press processing	CUA Creative Arts and Culture
CUAPOS211	Perform basic vision and sound editing	CUA Creative Arts and Culture
CUAPOS411	Edit digital content for fast turnaround	CUA Creative Arts and Culture
CUAPOS412	Manage media assets	CUA Creative Arts and Culture
CUAPPM417	Create storyboards	CUA Creative Arts and Culture
CUASOU212	Perform basic sound editing	CUA Creative Arts and Culture

CUASOU304	Prepare audio assets	CUA Creative Arts and Culture
CUASOU407	Edit sound	CUA Creative Arts and Culture
CUASOU417	Edit sound	CUA Creative Arts and Culture
CUASOU504	Produce sound recordings	CUA Creative Arts and Culture
FSKDIG002	Use digital technology for routine and simple workplace tasks	FSK Foundation Skills
HLTAID009	Provide cardiopulmonary resuscitation	HLT Health
HLTAID011	Provide First Aid	HLT Health
ICPDMT3460	Incorporate video into multimedia presentations	ICP Printing and Graphic Arts
ICPPRP4840	Set up and operate automated workflow	ICP Printing and Graphic Arts
PSPPCM023	Manage strategic contracts	PSP Public Sector
RIICCM202D	Identify, locate and protect underground services	RII Resources and Infrastructure Industry
RIICCM202E	Identify, locate and protect underground services	RII Resources and Infrastructure Industry
RIIWHS202D	Enter and work in confined spaces	RII Resources and Infrastructure Industry
RIIWHS202E	Enter and work in confined spaces	RII Resources and Infrastructure Industry
RIIWHS204D	Work safely at heights	RII Resources and Infrastructure Industry
RIIWHS204E	Work safely at heights	RII Resources and Infrastructure Industry
RIIWHS205D	Control traffic with stop-slow bat	RII Resources and Infrastructure Industry
RIIWHS205E	Control traffic with stop-slow bat	RII Resources and Infrastructure Industry
RIIWHS302D	Implement traffic management plan	RII Resources and Infrastructure Industry
RIIWHS302E	Implement traffic management plans	RII Resources and Infrastructure Industry

SIRXCEG006	Provide online customer service	SIR Retail Services
SIRXMKT002	Use social media to engage customers	SIR Retail Services
TLID2010	Operate a forklift	TLI Transport and Logistics
UEPOPS423	Plan a scheduled outage	UEP Electricity Supply Industry Generation Sector
UETDREL006	Work safely in the vicinity of live electrical apparatus as a non-electrical worker	UET Transmission, Distribution and Rail Sector
UETTDREL14A	Working safely near live electrical apparatus as a nonelectrical worker	UET12 Transmission, Distribution and Rail Sector

Where units that form part of skill sets include pre-requisite units, list these pre-requisite units.

Prerequisite units in the ICT Training Package

Pre-requisite units the ICT Information and Communications Technology Training Package Version 9.0	
Unit code and title	Prerequisite unit code and title
CPCCCM2007 Use explosive power tools	CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry
CPCCDE3014A Remove non-friable asbestos	CPCCWHS1001 Prepare to work safely in the construction industry
CPCCDE3014 Remove non-friable asbestos	CPCCWHS1001 Prepare to work safely in the construction industry
CPCCLRG3001 Licence to perform rigging basic level	CPCCLDG3001 Licence to perform dogging x
ICTBWN308 Work safely on live optical fibre installations	ICTBWN307 Use optical measuring instruments ICTWHS204 Follow work health and safety and environmental policy and procedures
ICTCBL246 Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule	ICTTEN208 Use electrical skills when working with telecommunications networks. ICTWHS204 Follow work health and safety and environmental policy and procedures

ICTCBL247 Install, maintain and modify customer premises communications cabling: ACMA Open Rule	ICTTEN208 Use electrical skills when working with telecommunications networks. ICTWHS204 Follow work health and safety and environmental policy and procedures
ICTCBL316 Install ribbon fibre cable in the FTTX distribution network	ICTCBL330 Splice and terminate optical fibre cable for telecommunications projects
ICTCMP203 Perform restricted customer premises broadband cabling work: ACMA Restricted Rule	ICTCBL246 Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule OR ICTCBL239 Install customer cable support systems and ICTCBL240 Place and secure customer cable and ICTCBL241 Terminate metallic conductor customer cable and ICTCMP201 Organise and monitor cabling to ensure compliance with regulatory and industry standards
ICTDRE314 Design communications wiring systems for customer premises	ICTCBL247 Install, maintain and modify customer premises communications cabling: ACMA Open Rule
ICTTEN435 Solve electrical-based telecommunications circuitry and cabling	ICTTEN208 Use electrical skills when working with telecommunications networks problems

Key work and training requirements in the industry.

Training and assessment in simulated environments

Units of competency in the ICT Information and Communications Technology Training Package may be delivered and assessed in the workplace or in a simulated workplace environment.

To maintain the integrity of training and assessment RTOs, trainers and assessors need to keep pace with industry technologies and ensure that learning activities and assessments accurately reflect workplace activities. RTOs will need regular contact with industry to ensure the currency and validity of all activities conducted in simulated environments.

All assessors must consider relevant care and due diligence when assessing units of competency.

Requirements for assessors

Assessor requirements are identified in the Assessment Conditions section of assessment requirements for each unit of competency. All assessors must meet the requirements set by the applicable registering body (refer to the section 'Who can deliver and assess a qualification?' in this Guide). It is also recommended that assessors have current and specialist industry skills, knowledge and experience for the applicable part of the Training Package being assessed.

Workplace simulation criteria

In conducting training and assessment in a simulated workplace environment, trainers and assessors must make sure that the simulated environment gives the learner the opportunity to meet the following critical criteria:

1. Quality – The work is of the standard required in the industry.
2. Productivity – The work is performed within a timeframe appropriate in the industry.
3. Safety – The work is performed in a manner that meets industry safety standards.

Where simulations meet these criteria, RTOs can be confident that learners are 'work ready' on successful completion of units of competency.

Simulations should provide opportunities for integrated assessment of competence that include:

- performing the task (task skills)
- managing a number of tasks (task management skills)
- dealing with workplace irregularities such as unexpected problems, breakdowns and changes in routine (contingency management skills)
- fulfilling the responsibilities and expectations of the job and workplace, including working with others (job/role environment skills)
- transferring competency to new contexts.

To further enhance the validity of assessment processes using simulation, the assessor should consider:

- assessments covering a range of interconnected units of competency
- use of assessment checklists to ensure that all performance evidence and knowledge evidence requirements have been met
- use of self-assessment, peer assessment and debriefing activities
- use of authentic workplace documentation.

Assessment activities must be realistic and reasonable in terms of scale.

Australian apprenticeships

Apprenticeships and traineeships are legally binding training arrangements between an employer and an employee that combine training with paid employment.

Apprenticeships and traineeships are established and administered by State or Territory Training Authorities

(STAs). STAs are the government departments in each state or territory responsible for the operation of the VET system (including Australian Apprenticeships).

The Australian Apprenticeships website offers information about apprenticeships and traineeships and includes links to the websites for STAs. Visit www.australianapprenticeships.gov.au for more information.

The following ICT Information and Communications Technology Training Package qualifications are suitable as an Australian traineeship or apprenticeship pathway:

- ICT20120 Certificate II in Applied Digital Technologies
- ICT20219 Certificate II in Telecommunications Network Build and Operation
- ICT20319 Certificate II in Telecommunications Technology
- ICT30419 Certificate III in Telecommunications Network Build and Operation
- ICT30524 Certificate III in Telecommunications Technology
- ICT30120 Certificate III in Information Technology

- ICT41119 Certificate IV in Telecommunications Network Design
- ICT41219 Certificate IV in Telecommunications Engineering Technology
- ICT40120 Certificate IV in Information Technology.

VET for secondary school students

VET programs enable school students to acquire workplace skills and knowledge while till at secondary school.

Successful achievement of a VET program provides a school student with a nationally recognised AQF qualification, usually as part of a senior secondary certificate.

VET programs are packaged and delivered in various ways across Australia. The three main delivery arrangements used are:

- schools hold RTO status
- school sectoral bodies (such as Boards of Studies or regional offices) hold RTO status on behalf of a group of schools
- schools work together in partnership with RTOs.

In some state and territory school systems, school students who work part-time in an appropriate workplace may use this to fulfil work placement requirements. Virtual or simulated work placements may also be legitimate.

The following qualifications from the ICT Information and Communications Technology Training Package may be suitable for delivery to secondary school students:

- ICT20120 Certificate II in Applied Digital Technologies
- ICT20319 Certificate II in Telecommunications Technology
- ICT30120 Certificate III in Information Technology.

RTOs are advised to check requirements with the relevant authorities in their State or Territory.

Training and assessment issues for the school sector

Implementation of the ICT Information and Communications Technology Training Package within the school sector, while encouraged, needs to ensure:

- the currency of skills and knowledge of those who train and assess school students – particularly as expressed in the Standards for RTOs
- access to current industry equipment, facilities and training resources so that students acquire a realistic view of workplace realities and conditions
- comprehensive coverage of foundation skills, performance and knowledge as outlined in the unit of competency and assessment requirements for each unit of competency
- current and realistic learning and assessment experiences.

The ICT training package plays an important role in the education of information technology and telecommunication workers. The ICT industry encompasses a broad range of individuals and organisations who influence all sectors and industries. Given the rapid rate of technological change, it is essential that the ICT work and training requirements continue to reflect these critical industry changes.

Regulation and licensing implications for implementation.

Regulation or licensing issues are identified in the Application section of units of competency and the Qualification description section of qualifications. If there are no requirements, the following statement will appear: No licensing, legislative or certification requirements apply to this unit/qualification at the time of publication.

Relevant legislation and regulatory requirements

In developing the ICT Information and Communications Technology training package components, legislative and regulatory requirements were considered. Legislative and regulatory requirements differ between States and Territories in Australia and are subject to change. RTOs are responsible for ensuring that delivery and assessment incorporates the appropriate requirements.

All cabling must comply with the Telecommunications Act 1997. There are different requirements depending on whether the cabling work is on the network supply side or the customer premises side of the network.

The network boundary point is the crucial point of demarcation and is defined as the service output ports on the NBN Co Network Termination Device (NTD) and in particular the data service socket (UNI-D) and phone line service socket (UNI-V) on the NTD.

All wiring connected to data devices and telephones from the Network Termination Device (NTD) ports (UNI-V and UNI-D) is deemed customer premises cabling/wiring and is subject to licensing and registration. All wiring and cabling on the NTD side of these ports, including the installation of the NTD ports, are deemed to be that of the network installer (NBN).

ACMA licensing and registration

All cabling work performed from the NTD on the customer premises side is subject to the provisions set out in the Telecommunications Cabling Provider Rules 2016. These rules are administered through the Australian Communications and Media Authority (ACMA). The ACMA requires installers to be registered to carry out customer premises cabling work, which includes the connection, installation or maintenance (repair) of customer cabling. The ACMA rules for registration are set out in the document 'Pathways to ACMA Cabling Provider rules – Cabling registration.' This document includes the required units of competency for registration. The ACMA wiring rules do not apply to cabling up to and including the network boundary point. As legislation may change, please refer to the ACMA website (http://www.acma.gov.au) for the current registration requirements. Contact the relevant State or Territory Department(s) to check for particular licensing/registration requirements in your State or Territory.

Units of competency required for ACMA registrations

ACMA registration	Required units for registration
Restricted Registration	ICTCBL246 Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule OR ICTCBL239 Install customer cable support systems, and ICTCBL240 Place and secure customer cable, and ICTCBL241 Terminate metallic conductor customer cable, and

	ICTCMP201 Organise and monitor cabling to ensure compliance with regulatory and industry standards
Open Registration	ICTCBL247 Install, maintain and modify customer premises communications cabling: ACMA Open Rule OR ICTCBL239 Install customer cable support systems ICTCBL240 Place and secure customer cable, and ICTCBL241 Terminate metallic conductor customer cable, and ICTCBL242 Install functional and protective telecommunications earthing system, and ICTCBL206 Alter services to existing cable system, and ICTCMP201 Organise and monitor cabling to ensure compliance with regulatory and industry standards
Lift Registration	ICTCBL238 Install, maintain and modify customer premises communications cabling: ACMA Lift Rule
The following specialised competencies may also be attempted:	
Structured Cabling	ICTCBL301 Install, terminate and certify structured cabling installation
Optical Fibre	ICTCBL322 Install, test and terminate optical fibre cable on customer premises
Coaxial Cable	ICTCBL303 Install and terminate coaxial cable
Aerial	ICTCBL335 Construct aerial cable supports, and ICTCBL333 Install aerial cable for communications applications
Underground	ICTCBL334 Install underground enclosures and conduit, and ICTCBL329 Install underground cable for communications applications
Specialised broadband cabling (Restricted Cabler Registration)	ICTCMP203 Perform restricted customer premises broadband cabling work: ACMA Restricted Rule

High risk work

The ICT Information and Communications Technology Training Package includes units of competency associated with high-risk work as specified in the National Standard for Licensing Persons Performing High Risk Work. These units may be either specified in a qualification or selected as elective units under the packaging rules.

High risk work may include:

- scaffolding work
- rigging and dogging work
- crane and hoist operation
- forklift operation
- work in confined spaces
- explosives
- live electrical wires.

The Australian Safety and Compensation Council (ASCC) has produced a range of national standards and codes of practice under section 6 of the Australian Workplace Safety Standards Act 2005. The National Standard for Licensing Persons Performing High Risk Work specifies the requirements and restrictions for:

- the training and assessment for a person performing high risk work, and
- the arrangements for issuing a licence to a person performing high risk work.

RTOs delivering training in high-risk occupations should refer to the National Standard for Licensing Persons Performing High Risk Work.

Age restrictions apply to high-risk work so units of competency with these restrictions may not be appropriate for delivery in schools.

It is the responsibility of RTOs to ensure appropriate work health and safety (or occupational health and safety) legislation and regulations are met.

The following units of competency fall into the definition of high-risk work and should be delivered and assessed in accordance with the national standard.

- CPCCCM2007 Use explosive power tools
- CPCCDE3014 Remove non-friable asbestos
- CPCCDE3014A Remove non-friable asbestos
- CPCCLDG3001 Licence to perform dogging
- CPCCLRG3001 Licence to perform rigging basic level
- CPCCWHS1001 Prepare to work safely in the construction industry
- CPCCWHS2001 Apply OHS requirements, policies and procedures in the construction industry
- ICTBWN308 Work safely on live optical fibre installations
- ICTTCR203 Use safe rigging practices to climb and perform rescues on telecommunications network structures
- ICTWHS201 Provide telecommunications services safely on roofs
- ICTWHS205 Work safely near power infrastructure at a telecommunications workplace
- RIIWHS204D Work safely at heights
- RIIWHS204E Work safely at heights
- TLID2010 Operate a forklift
- UETTDREL14 Working safely near live electrical apparatus as a non-electrical worker.

Licensing and registration requirements for assessors

Assessor requirements are identified in the Assessment Conditions section the Assessment Requirements associated with the ICT units of competency.

All assessors must meet the requirements set by the applicable registering body (refer to the section 'Who can deliver and assess a qualification?' in this Guide).

In order to meet statutory, licensing or other industry requirements, assessors should meet the recommendations outlined in the following table, in addition to the mandatory requirements.

Licence/registration	Jurisdiction	Recommendation
Restricted Registration ICTCBL246 Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule ICTWHS204 Follow work health and safety and environmental policy and procedures	Australian Communications and Media Authority (ACMA)	Restricted Registered Cabler TITAB* registered assessor
Open Registration ICTCBL247 Install, maintain and modify customer premises communications cabling: ACMA Open Rule ICTWHS204 Follow work health and safety and environmental policy and procedures	Australian Communications and Media Authority (ACMA)	Open Registered Cabler TITAB registered assessor
Restricted registration ICTCBL239 Install customer cable support ICTCBL240 Place and secure customer cable ICTCBL241 Terminate metallic conductor customer cable ICTCMP201 Organise and monitor cabling to ensure compliance with regulatory and industry standards ICTWHS204 Follow work health and safety and environmental policy and procedures	Australian Communications and Media Authority (ACMA)	Restricted Registered Cabler
Open Registration ICTCBL239 Install customer cable support systems ICTCBL240 Place and secure customer cable ICTCBL241 Terminate metallic conductor customer cable ICTCBL242 Install functional and protective telecommunications earthing system ICTCBL206 Alter services to existing cable system	Australian Communications and Media Authority (ACMA)	Open Registered Cabler TITAB registered assessor

ICTCMP201 Organise and monitor cabling to ensure compliance with regulatory and industry standards ICTWHS204 Follow work health and safety and environmental policy and procedures		
Lift Registration ICTCBL238 Install, maintain and modify customer premises communications cabling: ACMA Lift Rule	Australian Communications and Media Authority (ACMA)	Open Registered Cabler TITAB registered assessor
Specialised Competency – Structured Cabling ICTCBL301 Install, terminate and certify structured cabling installation	Australian Communications and Media Authority (ACMA)	Open Registered Cabler TITAB registered assessor
Specialised Competency – Optical Fibre ICTCBL322 Install, test and terminate optical fibre cable on customer premises	Australian Communications and Media Authority (ACMA)	Open Registered Cabler TITAB registered assessor
Specialised Competency – Coaxial Cable ICTCBL303 Install and terminate coaxial cable	Australian Communications and Media Authority (ACMA)	Open Registered Cabler TITAB registered assessor
Specialised Competency – Aerial ICTCBL335 Construct aerial cable supports ICTCBL333 Install aerial cable for communications applications	Australian Communications and Media Authority (ACMA)	Open Registered Cabler TITAB registered assessor
Specialised Competency – Underground ICTCBL334 Install underground enclosures and conduit ICTCBL329 Install underground cable for communications applications	Australian Communications and Media Authority (ACMA)	Open Registered Cabler TITAB registered assessor
Specialised Competency – Specialised broadband cabling (Restricted Cabler Registration) ICTCMP203 Perform restricted customer premises broadband cabling work: ACMA Restricted Rule	Australian Communications and Media Authority (ACMA)	Open Registered Cabler TITAB registered assessor
Cable and System Testing ICTCBL323 Test cables and systems on customer premises	Telecommunications industry preferred (previously mandated by ACMA)	Open Registered Cabler TITAB registered assessor
Information about TITAB Australia is available at http://www.titab.com.au.		

Industry sectors and occupational outcomes of qualifications

Industry sectors represented in the training package

Industry sectors represented in ICT Information and Communications Technology Training Package		
Area	Unit sector (alpha code)	Description This code is used to indicate:
Communications Technology	Broadband and wireless networks (BWN)	Units of competency that can be used across industries and training packages to develop skills in installing fibre and cable
	Cabling (CBL)	Units of competency that can be used across industries and training packages to develop skills in altering and maintenance of existing cable systems.
	Telecommunications rigging installation (TCR)	Units of competency that can be used across industries and training packages to develop skills in telecommunications radio structure
	Telecommunications network engineering (TEN)	Units of competency that can be used across industries and training packages to develop skills to commission electronic systems
Information Technology	Artificial intelligence (AII)	Units of competency that can be used across industries and training packages to use artificial intelligence technologies
	Automation (AUT)	Units of competency requiring the use of technologies to automate processes
	Cloud computing (CLD)	Units of competency requiring the use of cloud computing
	Cyber security (CYS)	Units of competency that can be used across industries and training packages to develop advanced cyber security skills

	Data analytics (DAT)	Units of competency that can be used across industries and training packages to gather, verify and test data
	Database (DBS)	Units of competency that can be used across industries and training packages to develop skills to create a database
	Extended reality (XRE)	Units of competency that can be used across industries and training packages to apply augmented, virtual and mixed reality solutions
	Game development (GAM)	Units of competency that can be used across industries and training packages to develop game development skills
	General ICT (ICT)	Units of competency that can be used across industries and training packages to develop general ICT skills
	Internet of things (IOT)	Units of competency that can be used across industries and training packages to design, install, program and test IoT devices
	Programming and software development (PRG)	Units of competency that can be used across industries and training packages to develop advanced programming skills
	Radio frequency networks (RFN)	Units of competency that can be used across industries and training packages to develop skills analyse and install communication systems
	Web (WEB)	Units of competency that can be used across industries and training packages to design, develop, build and maintain websites and web services
Administration	Compliance (CMP)	Units of competency that can be used across industries and training packages to develop skills to ensure compliance with regulatory and industry standards

Cross-sector	Project management (PMG)	Units of competency that can be used across industries and training packages to develop skills in managing projects
	Education (EDU)	Units of competency that can be used across industries and training packages to develop skills in educational environments
Digital Media	Digital media technologies (DMT)	Units of competency that can be used across industries and training packages to develop skills in visual design and editing
	Digital reception technology (DRE)	Units of competency that can be used across industries and training packages to develop digital reception system skills
Networking	Network planning (NPL)	Units of competency that can be used across industries and training packages to develop network planning and design skills
	Networking (NWK)	Units of competency that can be used across industries and training packages to develop wireless network skills
	Optical networks (OPN)	Units of competency that can be used across industries and training packages to analyse and design optical transmission systems
Industry Capability	Design thinking (DSN)	Units of competency that can be used across industries and training packages to develop skills in design thinking in digital environments
	Systems analysis and design (SAD)	Units of competency requiring the analysis and design of systems
	Systems administration support (SAS)	Units of competency that can be used across industries and training packages to develop skills in problem-solving techniques
	Small and micro business industries (SMB)	Units of competency that can be used across and training

		packages to develop skills to operate a contractor business
	Sustainability (SUS)	Specialist units of competency developed for the application of environmentally sustainable work practices
	Workplace health and safety (WHS)	Units of competency developed for application as core workplace health and safety practices
	Workplace effectiveness (WOR)	Units of competency developed for application as core workplace skills and practices

Explanation of any mandatory entry requirements for qualifications and skill sets

Mandatory entry requirements

Generally, individuals may commence a qualification or skill set as long as they have the knowledge, skills or experience required for entry. Industry feedback has determined that particular entry requirements are required to maximise the successful completion of some qualifications by learners.

The table below shows those qualifications in the ICT Information and Communications Technology Training Package with specific entry requirements.

ICT qualifications with entry requirements		
Code and title	Entry requirements	Rationale
ICT41119 Certificate IV in Telecommunications Network Design	Entry to this qualification is limited to those individuals who hold: • a Certificate II or III in Telecommunications from the ICT Information and Communications Technology Training Package or the ICT10 Integrated Telecommunications Training Package and certified evidence of at least 700 hours of work experience within the related scope of this qualification, which may have occurred concurrent	This qualification reflects the role of a technician with a range of telecommunications skills and extensive knowledge of the access, building and core networks, and client capabilities of the service provider. These roles involve the learner being exposed to increased electrical and cabling risks. It is important the learner is experienced in this field as to ensure an increased understanding when designing a network.

	with or after the qualification was achieved or • a Certificate II or III in Electrotechnology from the UEE Electrotechnology Training Package and certified evidence of at least 700 hours of work experience within the related scope of this qualification, which may have occurred concurrent with or after the qualification was achieved or • a current unrestricted electrical licence from any Australian state or territory electrical regulator or • a Certificate II or III in Telecommunications from the ICT Information and Communications Technology Training Package or the ICT10 Integrated Telecommunications Training Package and enrolment in this Certificate IV as part of a traineeship or apprenticeship program or concurrently employed within the ICT industry or open registration as an ACMA registered cabler with certified evidence of at least 2100 hours of work experience within customer premises doing cabling or telecommunications carrier work.	
ICT41219 Certificate IV in Telecommunications Engineering Technology	Entry to this qualification is limited to those individuals who hold:	This qualification reflects the role of a technician with a range of telecommunications

	- a Certificate II or III in Telecommunications from the ICT Information and Communications Technology Training Package or the ICT10 Integrated Telecommunications Training Package and certified evidence of at least 700 hours of work experience within the related scope of the qualification, which may have occurred concurrent with or after the qualification was achieved or - a Certificate II or III in Electrotechnology from the UEE Electrotechnology Training Package and certified evidence of at least 700 hours of work experience within the related scope of the qualification, which may have occurred concurrent with or after the qualification was achieved or - a current unrestricted electrical licence from any Australian State or Territory electrical regulator or - a Certificate II or III in Telecommunications from the ICT Information and Communications Technology Training Package and enrolment in the ICT41219 Certificate IV in Telecommunications Engineering Technology as part of a traineeship or apprenticeship program or concurrently employed within the ICT industry or open registration as an ACMA registered cabler with certified	skills and extensive knowledge of the access, building and core networks, and client capabilities of the service provider. These roles involve the learner being exposed to increased electrical and cabling risks. It is important the learner is experienced in this field as to ensure an increased understanding when designing a network.

| | evidence of at least 2100 hours of work experience within the customer premises doing cabling or telecommunications carrier work. | |

The table below shows those skill sets in the ICT Information and Communications Technology Training Package with specific entry requirements.

ICT Skill Sets with entry requirements		
Code and title	**Entry requirements**	**Rationale**
ICTSS00127 Cloud Programmer Skill Set	Entry to this skill set is limited to those who have completed the following or equivalent units of competency. • ICTCLD501 Develop cloud disaster recovery plans • ICTCLD502 Design and implement highly available cloud infrastructure • ICTCLD503 Implement web-scale cloud infrastructure • ICTCLD504 Improve cloud-based infrastructure	This skill set reflects the role of individuals who work in cloud programmer roles, including software engineers, DevOps engineers, solution architects, cloud engineers, and other related roles responsible for programming cloud-based applications. These roles require background skills and knowledge offered by the units of competency in 'Group E – Cloud architect specialisation' in ICT50220 Diploma of Information Technology as listed in the left-hand column. This entry requirement was included to ensure that learners undertaking the skill set are experienced in this field and have sufficient understanding when developing and managing cloud-based microservices, serverless applications, and data persistence; and deploying continuous pipelines across ICT environments using virtual networks.

Pathways advice, particularly in line with requirements of the AQF Pathways Policy

Pathways in the ICT Training Package

Qualification pathways and occupational outcomes

A pathway is the route or course of action taken to get to a destination. A training pathway generally means the learning activities or experiences used to attain the competencies needed to achieve career goals. There is no single pathway that applies to everyone; each individual has specific needs and goals.

There are currently no national credit arrangements between qualifications in the ICT Information and Communications Technology Training Package and higher education programs.

Achievement of AQF qualifications provides opportunities for individuals to pursue and achieve their career goals. Qualifications can be achieved in various ways, including:

- off-the-job training, e.g. attending classroom-based learning programs
- on-the-job training, e.g. apprenticeships, traineeships
- skills recognition
- credit transfer.

The following information explains possible occupational outcomes for qualifications in this training package, together with pathways between qualifications.

Qualification occupational outcomes in ICT Information and Communications Technology Training Package (Version 9.0)		
Sector	Qualification	Occupational Outcomes
Computer Systems Technology	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • E-business project manager • ICT business manager • ICT manager • ICT procurement manager • Enterprise systems administrator • ICT administrator/ coordinator • ICT operations administrator/coordinator • Network administrator/coordinator • Network e-business administrator/coordinator • Network engineer • ICT program/project manager • Quality assurance manager – ICT projects

		• Senior project manager • Network operations analyst • Network security administrator/coordinator • Network services administrator/coordinator • Network support administrator/coordinator
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. • ICT office manager • ICT systems administrator • Information systems office manager • Office systems administrator • Systems manager
	ICT40120 Certificate IV in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Desktop deployment technician • Level 1 help desk support • Network operations support • Network operations technician • Network support administrator • Network support technician • Network technician
	ICT30120 Certificate III in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Help desk assistant/officer • ICT operations/user support • PC support • Technical support

Digital and Interactive Games	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • E-business project manager • ICT business manager • ICT manager • ICT procurement manager • ICT program/project manager • Quality assurance manager – ICT projects • Senior project manager
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. • 2D/3D artist • Animator • Designer • Games developer • Graphic/media designer • Interactive digital media developer • Mobile games programmer • PC games programmer • Web designer
	ICT40120 Certificate IV in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • 2D/3D artist support • Assistant animator • Assistant designer • Assistant graphic/media designer • Assistant PC games programmer • Digital media developer support

(Top of table, continued from previous page:)
• Foundation skills only

		• Games developer support • Interactive media developer support • Web designer support
	ICT30120 Certificate III in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Help desk assistant/officer • ICT operations/user support • PC support • Technical support
Digital Media Technologies	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for Technology paraprofessional/highly skilled work and/or further learning. • E-business project manager • ICT business manager • ICT manager • ICT procurement manager • ICT program/project manager • Quality assurance manager – ICT projects • Senior project manager
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised Information Technology knowledge and skills for skilled/paraprofessional work and/or further learning. • Digital media authoring specialist • Digital media designer • Digital media developer/engineer • Digital media producer
	ICT40120 Certificate IV in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning.

		• Assistant animator/designer • Assistant digital media author • Assistant digital media designer • Assistant digital media developer • Assistant digital media programmer • Assistant web designer • Interactive media developer support • Digital media developer support • Digital media development technician support
	ICT30120 Certificate III in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Help desk assistant/officer • ICT operations/user support • PC support • Technical support • Foundation skills only.
Information Technology	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • Business development manager • ICT infrastructure solutions manager • Knowledge manager • Enterprise systems administrator • ICT administrator/coordinator • ICT operations administrator/coordinator • Network administrator/coordinator

		- Network e-business administrator/coordinator - Network engineer Knowledge management analyst Software manager - Network operations analyst - Network security administrator/coordinator - Network services administrator/coordinator - Network support administrator/coordinator - Systems developer.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. - ICT office manager - ICT systems administrator - Information systems office manager - Office systems administrator.
	ICT40120 Certificate IV in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. - Computer technician - Customer support - Customer support professional - Information systems operator - Network operations technician - PC support - Systems administrator - Systems support - Technical support - User support technician.
	ICT30120 Certificate III in Information Technology	Graduates at this level will have theoretical and practical

		knowledge and skills for work and/or further learning. • Help desk assistant/officer • ICT operations/user support • PC support • Technical support • Foundation skills only
	ICT20120 Certificate II in Applied Digital Technologies	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Foundation skills only.
Information Technology Networking	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • E-security specialist • ICT security specialist • ICT security administrator • ICT security analyst • ICT security specialist • Network security administrator • Network security analyst • Network security specialist • Senior network administrator • Systems/network administrator • Systems security analyst.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. • ICT administrator • ICT operations administrator • Network administrator • Network e-business coordinator • Network operations analyst • Network security coordinator

		• Network services administrator • Network support coordinator
	ICT40120 Certificate IV in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Network operations support • Network operations technician • Network support • Network technician • Network support technician.
	ICT30120 Certificate in III Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Help desk assistant/officer • ICT operations/user support • PC support • Technical support • Foundation skills only.
Information Technology Programming	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • E-business project manager • ICT business manager • ICT manager • ICT procurement manager • ICT program/project manager • Quality assurance manager – ICT projects • Senior project manager.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for

		skilled/paraprofessional work and/or further learning. • Analyst programmer support • Assistant programming developer • Assistant software applications programmer • Assistant software developer • Database support programmer • Web support programmer.
	ICT40120 Certificate IV in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Assistant applications programmer • Assistant programmer • Assistant software developer • Assistant web application programmer • Assistant web developer.
	ICT30120 Certificate III in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Help desk assistant/officer • ICT operations/user support • PC support • Technical support • Foundation skills only.
Information Technology Support	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • E-business project manager • ICT business manager • ICT manager

		• ICT procurement manager • ICT program/project manager • Quality assurance manager – ICT projects • Senior project manager.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. • Assistant ICT manager • Assistant systems manager • Internet/intranet administrator • Internet/intranet systems administrator • Systems administrator.
	ICT40120 Certificate IV in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Customer support • Database support • Help desk support • Network support technician • PC support technician • Technical support – sustainability • User support technician.
	ICT30120 Certificate III in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Help desk assistant/officer • ICT operations/user support • PC support • Technical support • Foundation skills only.
	ICT60220 Advanced Diploma of Information	Graduates at this level will have broad knowledge and

| Information Technology Testing | Technology | skills for paraprofessional/highly skilled work and/or further learning.

- E-business project manager
- ICT business manager
- ICT manager
- ICT procurement manager
- ICT program/project manager
- Quality assurance manager – ICT projects
- Senior project manager. |
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| | ICT50220 Diploma of Information Technology | Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning.

- Assistant database designer
- Assistant database developer
- Assistant database specialist. |
| | ICT40120 Certificate IV in Information Technology | Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning.

- Assistant ICT tester
- Assistant software/systems tester
- Assistant web tester. |
| | ICT30120 Certificate III in Information Technology | Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning.

- Help desk assistant/officer
- ICT operations/user support
- PC support
- Technical support
- Foundation skills only. |
| Systems Analysis and Design | ICT60220 Advanced Diploma of Information Technology | Graduates at this level will have broad knowledge and |

		skills for paraprofessional/highly skilled work and/or further learning. • Business analyst • Business process analyst • Business systems analyst • ICT business manager • ICT manager • Project manager • Quality assurance manager – ICT projects • Requirements analyst • Solution analyst.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. • Applications architect • Business analyst • Information technology analyst • Systems analyst • Systems architect
	ICT30120 Certificate III in Information Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Help desk assistant/officer • ICT operations/user support • PC support • Technical support • Foundation skills only.
	ICT20120 Certificate II in Applied Digital Technologies	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Foundation skills only.
Telecommunications Cabling	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning.

		• Network designer • Telecommunications network manager.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. • Emerging technologies installer • Specialised network infrastructure • Planner • Specialised optical network infrastructure planner • Telecommunications technical specialist • Telecommunications planning specialist.
	ICT41119 Certificate IV in Telecommunications Network Design	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Building network designer • Carrier equipment infrastructure designer • Core network for the service provider and asset • owner designer • Telecommunications technician planner.
	ICT41219 Certificate IV in Telecommunications Engineering Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Home network installer • IP-based network installer • Optical network equipment installer • Optical network technician • Telecommunications technician.

	ICT30524 Certificate III in Telecommunications Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Cabler and installer • Equipment installer • Security alarm installer • Telecommunications equipment operator • Telecommunications tradesperson.
	ICT20219 Certificate II in Telecommunications Network Build and Operation ICT20319 Certificate II in Telecommunications Technology	Graduates at this level will have knowledge and skills for work in a defined context and/or further learning. • Carrier services cabler • Data cabler • Security alarm cabler • Telecommunications equipment operator • Telecommunications tradesperson.
Telecommunications Customer Access Networks and Installations	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • IP-based convergence integrator • IP-based network designer • Network designer • Network security manager • Telecommunications network manager.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. • Customer service manager • Emerging technologies installer • IP-based network installer • Operations manager

		• Secure ICT network installer • Specialised optical network infrastructure planner • Telecommunications technical specialist • Service provider network planner • Service provider network designer • Telecommunications planning specialist.
	ICT41119 Certificate IV in Telecommunications Network Design	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Building network designer • Carrier equipment infrastructure designer • Core network for the service provider and asset owner designer • Telecommunications technician planner.
	ICT41219 Certificate IV in Telecommunications Engineering Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Customer computer system installer • Customer equipment installer • Home network installer • IP-based network installer • Network security equipment installer • Optical network equipment installer • Optical network technician • RF network infrastructure installer • RF network technician • RFID system installer

		• Secure ICT network installer • Sustainability network equipment installer • Telecommunications network technician • WiMAX or Wi-Fi system installer • Wireless LAN installer • Wireless network equipment installer.
	ICT30419 Certificate III in Telecommunications Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning. • Equipment installer • Fixed wireless installer • IP-based security alarms installer • Security alarms installer • Telecommunications and data cabling installer • Telecommunications equipment operator • Telecommunications network equipment operator • Telecommunications tradesperson • Telecommunications voice and data equipment installer.
	ICT20219 Certificate II in Telecommunications Network Build and Operation ICT20319 Certificate II in Telecommunications Technology	Graduates at this level will have knowledge and skills for work in a defined context and/or further learning. • IP-based network installer • Security alarm cabler • Security alarm installer • Small to medium business network installer • Telecommunications cabler • Telecommunications equipment installer

		• Telecommunications equipment operator • TV and digital TV antenna installer • TV installer.
Telecommunications Digital Reception	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • Network designer • Telecommunications network manager.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. • Emerging technologies installer • Specialised network infrastructure planner • Telecommunications technical specialist • Telecommunications planning specialist.
	ICT41219 Certificate IV in Telecommunications Engineering Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Customer equipment installer • Home network installer • Optical network equipment installer • Sustainability network equipment installer • Telecommunications network technician.
	ICT30419 Certificate III in Telecommunications Technology	Graduates at this level will have theoretical and practical knowledge and skills for work and/or further learning.

		• Audio-visual systems integrator • Free to air TV installer – multiple services • Field service technician – RF services • Subscription TV installer – multiple services.
	ICT20219 Certificate II in Telecommunications Network Build and Operation ICT20319 Certificate II in Telecommunications Technology	Graduates at this level will have knowledge and skills for work in a defined context and/or further learning. • Free to air TV installer • Satellite TV installer • Subscription TV installer • TV and digital TV antenna installer.
Telecommunications Radio Communications	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • IP-based convergence integrator • IP-based network designer • IP-based optical network designer • Network designer • Network security manager • Telecommunications network manager.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning. • Emerging technologies installer • Specialised RF network infrastructure planner • IP-based RF network installer • Telecommunications technical specialist

		• Telecommunications planning specialist.
	ICT41119 Certificate IV in Telecommunications Network Design	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Building network designer • Telecommunications technician planner.
	ICT41219 Certificate IV in Telecommunications Engineering Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Radio communications technician • Radio frequency auditor • Radio frequency compliance officer • Radio frequency field technician • Radio frequency technician • Telecommunications radio technician • WiMAX of Wi-Fi system installer • Wireless system installer.
	ICT30524Certificate III in Telecommunications Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Telecommunications fixed wireless network equipment installer • Telecommunications tradesperson • Telecommunications voice and data equipment installer • Installer of radio equipment and cabling on radio towers

		• Installer of telecommunications network equipment on structures • Maintainer and tester of telecommunications radio network equipment on structures • Telecommunications rigger technician.
	ICT20219 Certificate II in Telecommunications Network Build and Operation ICT20319 Certificate II in Telecommunications Technology	Graduates at this level will have knowledge and skills for work in a defined context and/or further learning. • Equipment installer • Installer of radio equipment and cabling on radio towers • Installer of radio telecommunications equipment on structures • IP-based network installer • Radio base stations installer • SME business network installer • Telecommunications equipment operator.
Telecommunications Supply Networks	ICT60220 Advanced Diploma of Information Technology	Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning. • IP-based convergence integrator • IP-based network designer • IP-based optical network designer • Network designer • Network security manager • Telecommunications network manager.
	ICT50220 Diploma of Information Technology	Graduates at this level will have specialised knowledge and skills for

		skilled/paraprofessional work and/or further learning.
		• Accounts manager • Customer service manager • Emerging technologies installer • Finance manager • HR manager • Operations manager • Recruitment manager • Specialised optical networks infrastructure planner • Telecommunications technical specialist • Service provider network planner • Service provider network designer • Telecommunications planning specialist.
	ICT41119 Certificate IV in Telecommunications Network Design	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Access network planner • Carrier equipment infrastructure designer • Customer access network designer • Telecommunications technician planner.
	ICT41219 Certificate IV in Telecommunications Engineering Technology	Graduates at this level will have theoretical and practical knowledge and skills for specialised and/or skilled work and/or further learning. • Optical network infrastructure installer • Optical network technician • Telecommunications network technician.
	ICT30419 Certificate III in Telecommunications Network Build and Operation	Graduates at this level will have theoretical and practical

		knowledge and skills for work and/or further learning. • Copper cable jointer • Fibre slicer • Fibre technician • HFC technician.
	ICT20219 Certificate II in Telecommunications Network Build and Operation ICT20319 Certificate II in Telecommunications Technology	Graduates at this level will have knowledge and skills for work in a defined context and/or further learning. • Telecommunications lines worker copper • Telecommunications lines worker fibre • Telecommunications lines worker HFC.

Advice about a skill set's relationship with a qualification/s.

Skill set pathways

Skill set pathways information in ICT Information and Communications Technology Training Package (Version 9.0)		
Code	Title	Pathways Information
ICTSS00077	Telecommunications Linesworker Copper Skill Set	This skill set provides credit towards the ICT20219 Certificate II in Telecommunications Network Build and Operation.
ICTSS00078	Telecommunications Linesworker Fibre Skill Set	This skill set provides credit towards the ICT20219 Certificate II in Telecommunications Network Build and Operation.
ICTSS00080	Copper Cable Jointer Skill Set	This skill set provides credit towards the ICT30419 Certificate III in Telecommunications Network Build and Operation.
ICTSS00083	Underground Installations Skill Set	This skill set provides credit towards the ICT20219 Certificate II in

		Telecommunications Network Build and Operation, ICT30419 Certificate III in Telecommunications Network Build and Operation and ICT30524 Certificate III in Telecommunications Technology.
ICTSS00084	Basic Open Cabler Registration Skill Set	This skill set provides credit towards ICT30524 Certificate III in Telecommunications Technology.
ICTSS00085	Basic Restricted Cabler Registration Skill Set	This skill set provides credit towards ICT20319 Certificate II in Telecommunications Technology.
ICTSS00086	ACMA Advanced Cabler Registration Skill Set	This skill set provides credit towards ICT30524 Certificate III in Telecommunications Technology.
ICTSS00087	Basic Technician Network Build and Operate Skill Set	This skill set provides credit towards the ICT30419 Certificate II in Telecommunications Network Build and Operation.
ICTSS00091	Radio Technician Skill Set	This skill set provides credits towards ICT41219 Certificate IV in Telecommunications Engineering Technology.
ICTSS00092	Technical Help Desk Support Skill Set	This skill set provides credit towards ICT30524 Certificate III in Telecommunications Technology.
ICTSS00093	Telecommunications Linesworker HFC Skill Set	This skill set provides credit towards the ICT20219 Certificate II in Telecommunications Network Build and Operation.
ICTSS00094	Technician Fibre Skill Set	This skill set provides credit towards the ICT30419 Certificate III in Telecommunications Network Build and Operation.
ICTSS00095	Fibre Splicer Skill Set	This skill set provides credit towards the ICT30419

		Certificate III in Telecommunications Network Build and Operation.
ICTSS00096	Technician Hybrid Fibre Coaxial Skill Set	This skill set provides credit towards the ICT30419 Certificate III in Telecommunications Network Build and Operation.
ICTSS00097	Telecommunications Customer Service Technician – HFC Technician Skill Set	This skill set provides credit towards the ICT30419 Certificate III in Telecommunications Network Build and Operation.
ICTSS00098	Network Technician HFC Skill Set	This skill set provides credit towards the ICT41219 Certificate IV in Telecommunications Engineering Technology.
ICTSS00099	Cloud Design and Configuration Skill Set	This skill set provides credit towards ICT50220 Diploma of Information Technology.
ICTSS00100	Cloud Implementation and Maintenance Skill Set	This skill set provides credit towards ICT50220 Diploma of Information Technology.
ICTSS00101	Cyber Incident Response Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology.
ICTSS00102	Cyber Incident Threat Detection and Prevention Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology.
ICTSS00103	Cyber Security Strategy and Governance Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma of Information Technology.
ICTSS00104	Data Analysis Skill Set	This skill set provides credit towards ICT50220 Diploma of Information Technology.
ICTSS00105	Internet of Things Developer Skill Set	This skill set provides credit towards ICT50220 Diploma of Information Technology and ICT60220 Advanced Diploma of Information Technology.

ICTSS00106	Introductory Tools and Applications Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology.
ICTSS00107	Introductory Help Desk Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology.
ICTSS00108	Digital Skills for Small Business Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology
ICTSS00109	Entry to Tech Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology.
ICTSS00110	Radio Frequency Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology.
ICTSS00111	Optical Networking Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology.
ICTSS00113	Telecommunications Networking Management Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma of Information Technology (Specialisation in Telecommunications Network Engineering) and other qualifications that allow for selection of the skill set's units.
ICTSS00114	Advanced Telecommunications Networking Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma of Information Technology (Specialisation in Telecommunications Network Engineering) and other qualifications that allow for selection of the skill set's units.
ICTSS00115	XG Cellular Network Infrastructure Rollout Skill Set	This skill set provides credit towards ICT30419 Certificate III in Telecommunications Network Build and Operation, ICT41219 Certificate IV in Telecommunications Engineering Technology and other qualifications that allow for selection of the skill set's units.

ICTSS00116	XG Cellular Network Implementation Skill Set	This skill set provides credit towards ICT41219 Certificate IV in Telecommunications Engineering Technology and other qualifications that allow for selection of the skill set's units.
ICTSS00117	Cyber Security Insider Risks and Threats Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma of Information Technology and other qualifications that allow for selection of the skill set's units.
ICTSS00118	User Experience Design Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection of the skill set's units.
ICTSS00119	Advanced Data Analytics Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma of Information Technology and other qualifications that allow for selection of the skill set's units.
ICTSS00120	Artificial Intelligence Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology, ICT40120 Certificate IV in Information Technology, ICT50220 Diploma of Information Technology and other qualifications that allow for selection of the skill set's units
ICTSS00121	Extended Reality Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection of the skill set's units.
ICTSS00122	Industrial Automation Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology, ICT50220 Diploma of Information Technology,

		ICT60220 Advanced Diploma of Information Technology, and other qualifications that allow for selection of the skill set's units.
ICTSS00123	Software Automation Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection of the skill set's units.
ICTSS00124	Cloud Infrastructure Skill Se	This skill set provides credit towards ICT60220 Advanced Diploma of Information Technology and other qualifications that allow for selection of the skill set's units.
ICTSS00125	Cloud Security Skill Set	This skill set provides credit towards ICT50220 Diploma of Information Technology and other qualifications that allow for selection of the skill set's units.
ICTSS00126	Advanced Cyber Incident Threat Detection and Prevention Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology, ICT60220 Advanced Diploma of Information Technology, and other qualifications that allow for selection of the skill set's units.
ICTSS00127	Cloud Programmer Skill Set	This skill set provides credit towards ICT50220 Diploma of Information Technology, ICT60220 Advanced Diploma of Information Technology, and other qualifications that allow for selection of the skill set's units.
ICTSS00128	Network Security and System Protection Skill Set	This skill set provides credit towards ICT50220 Diploma of Information Technology, ICT60220 Advanced Diploma of Information Technology, and other qualifications that

		allow for selection of the skill set's units.
ICTSS00129	DevOps System Administration Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology, ICT50220 Diploma of Information Technology, ICT60220 Advanced Diploma of Information Technology, and other qualifications that allow for selection of the skill set's units.
ICTSS00130	Intermediate Digital Skills for Small Business Skill Set	This skill set provides credit towards BSB50120 Diploma of Business, ICT30120 Certificate III in Information Technology, ICT40120 Certificate IV in Information Technology, and other qualifications that allow for selection of the skill set's units.
ICTSS00131	Introduction to Assistive Technologies Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection of the skill set's units.
ICTSS00132	Core Technical IT Skills for Introductory Roles Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise some of the core units of ICT40120 Certificate IV in Information Technology.
ICTSS00133	Core Transferable IT Skills for Introductory Roles Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise some of the core units of ICT40120

		Certificate IV in Information Technology.
ICTSS00134	Database Development for Introductory Roles Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Database development in ICT40120 Certificate IV in Information Technology.
ICTSS00135	Database Maintenance for Introductory Roles Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Database maintenance in ICT40120 Certificate IV in Information Technology.
ICTSS00136	Gaming Development for Introductory Roles Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Gaming development in ICT40120 Certificate IV in Information Technology.
ICTSS00137	Networking for Introductory Roles Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Networking in

		ICT40120 Certificate IV in Information Technology.
ICTSS00138	Programming Skills for Introductory Roles Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Programming in ICT40120 Certificate IV in Information Technology.
ICTSS00139	Systems Administration Support Skills for Introductory Roles Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Systems administration support in ICT40120 Certificate IV in Information Technology.
ICTSS00140	Web Development for Introductory Roles Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Web development in ICT40120 Certificate IV in Information Technology.
ICTSS00141	Core Technical IT Skills for Intermediate Roles Skill Se	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise some of the core units of ICT50220 Diploma in Information Technology.

ICTSS00142	Core Transferable IT Skills for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise some of the core units of ICT50220 Diploma in Information Technology.
ICTSS00143	Networking Skills for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Advanced networking in ICT50220 Diploma in Information Technology.
ICTSS00144	Programming Skills for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Advanced programming in ICT50220 Diploma in Information Technology.
ICTSS00145	Back End Web Development for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Back end web development in ICT50220 Diploma in Information Technology.
ICTSS00146	Business Analysis for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's

		units. The units in this skill set comprise the mandatory units required for a specialisation in Business analysis in ICT50220 Diploma in Information Technology.
ICTSS00147	Cloud Architecture for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Cloud architecture in ICT50220 Diploma in Information Technology.
ICTSS00148	Cloud Engineering for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Cloud engineering in ICT50220 Diploma in Information Technology.
ICTSS00149	Cyber Security for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Cloud security in ICT50220 Diploma in Information Technology.
ICTSS00150	Database and Data Management for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in

		Database and data management in ICT50220 Diploma in Information Technology.
ICTSS00151	Front End Web Development for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Front end web development in ICT50220 Diploma in Information Technology.
ICTSS00152	Game Art and Design for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Game art and design in ICT50220 Diploma in Information Technology.
ICTSS00153	Game Programming for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Game programming in ICT50220 Diploma in Information Technology.
ICTSS00154	Systems Administration for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Systems administration in

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		ICT50220 Diploma in Information Technology.
ICTSS00155	Systems Analysis for Intermediate ICT Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Systems analysis in ICT50220 Diploma in Information Technology.
ICTSS00156	Telecommunications Network Engineering for Intermediate Roles Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Telecommunications network engineering in ICT50220 Diploma in Information Technology.
ICTSS00157	Core Technical IT Skills for Advanced Roles Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise some of the core units of ICT60220 Advanced Diploma in Information Technology.
ICTSS00158	Core Transferable IT Skills for Advanced Roles Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise some of the core units of ICT60220 Advanced

		Diploma in Information Technology.
ICTSS00159	Data Management Information Skills for Advanced Roles Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Advanced data management information in ICT60220 Advanced Diploma in Information Technology.
ICTSS00160	Cyber Security for Advanced Roles Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Cyber security in ICT60220 Advanced Diploma in Information Technology.
ICTSS00161	Full Stack Web Development for Advanced Roles Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Full stack web development in ICT60220 Advanced Diploma in Information Technology.
ICTSS00162	Programming Skills for Advanced Roles Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units

		required for a specialisation in Further programming in ICT60220 Advanced Diploma in Information Technology.
ICTSS00163	IT Strategy and Organisational Development for Advanced Roles Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in IT strategy and organisational development in ICT60220 Advanced Diploma in Information Technology.
ICTSS00164	Systems Development and Analysis for Advanced Roles Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Systems development and analysis in ICT60220 Advanced Diploma in Information Technology.
ICTSS00165	Telecommunications Network Engineering for Advanced Roles Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma in Information Technology and other qualifications that allow for selection the skill set's units. The units in this skill set comprise the mandatory units required for a specialisation in Telecommunications network engineering in ICT60220 Advanced Diploma in Information Technology.
ICTSS00166	Application Development Specialist Skill Set	This skill set provides credit towards ICT50220 Diploma in Information Technology and other qualifications that allow

		for selection the skill set's units.
ICTSS00167	Basic Application Development Programmer Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00168	Basic Web Development Specialist Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology, ICT40120 Certificate IV in Information Technology, and other qualifications that allow for selection the skill set's units.
ICTSS00169	Certified Network Associate Technology Specialist Skill Set	This skill set provides credit towards ICT50120 Diploma of Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00170	Certified Network Professional Specialist - Voice and Wireless Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma of Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00171	Security and Network Architect Specialist Skill Set	This skill set provides credit towards ICT50120 Diploma of Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00172	Certified Technology Specialist - Graphical User Interfaces Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00173	Certified Web Design Specialist Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that

		allow for selection the skill set's units.
ICTSS00174	Hardware Technician Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00175	Internetworking Systems Coordinator - Administrator Skill Set	This skill set provides credit towards ICT60120 Advanced Diploma of Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00176	Interactive Content Specialist Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology, Certificate III in Visual Arts, and other qualifications that allow for selection the skill set's units.
ICTSS00177	System and Hardware Technician Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology, ICT40120 Certificate IV in Information Technology, and other qualifications that allow for selection the skill set's units.
ICTSS00178	System and Network Plus Technician Skill Set	This skill set provides credit towards ICT30120 Certificate III in Information Technology, ICT40120 Certificate IV in Information Technology, and other qualifications that allow for selection the skill set's units.
ICTSS00179	Virtualisation Specialist Skill Set	This skill set provides credit towards ICT50220 Diploma of Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00180	Visual Communications Specialist Skill Set	This skill set provides credit towards ICT30120 Certificate III

		in Information Technology, CUA31120 Certificate III in Visual Arts, and other qualifications that allow for selection the skill set's units.
ICTSS00181	Website Administration Specialist Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00182	Enterprise Desktop Virtualisation Specialist Skill Set	This skill set provides credit towards ICT60220 Advanced Diploma of Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00183	Enterprise Server Virtualisation Specialist Skill Set	This skill set provides credit towards ICT50220 Diploma of Information Technology and other qualifications that allow for selection the skill set's units.
ICTSS00184	Advanced ICT Sustainability Skill Set	This skill set provides credit towards BSB51319 Diploma of Work Health and Safety, ICT41219 Certificate IV in Telecommunications Engineering Technology, ICT50220 Diploma of Information Technology, and other qualifications that allow for selection the skill set's units.
ICTSS00185	Basic ICT Sustainability Skill Set	This skill set provides credit towards ICT40120 Certificate IV in Information Technology, ICT41219 Certificate IV in Telecommunications Engineering Technology, and other qualifications that allow for selection the skill set's units.
ICTSS00186	Civil Works – Installation of Pit and Pipe and FDH Skill Set	This skill set provides credit towards the CPC10120 Certificate I in Construction,

		ICT20219 Certificate II in Telecommunications Network Build and Operation, ICT20319 Certificate II in Telecommunications Technology, and other qualifications that allow for selection the skill set's units.
ICTSS00187	Commercial Digital Television Antenna Systems Installation Skill Set	This skill set provides credit towards ICT20219 Certificate II in Telecommunications Network Build and Operation, ICT30524 Certificate III in Telecommunications Technology and other qualifications that allow for selection the skill set's units.
ICTSS00188	Network Designer and Installation Skill Set	This skill set provides credit towards ICT20219 Certificate II in Telecommunications Network Build and Operation, ICT30524 Certificate III in Telecommunications Technology, ICT41119 Certificate IV in Telecommunications Network Design, ICT50220 Diploma of Information Technology, and other qualifications that allow for selection the skill set's units.
ICTSS00189	Digital Antenna System and Component Installation Skill Set	This skill set provides credit towards ICT20219 Certificate II in Telecommunications Network Build and Operation, ICT30524 Certificate III in Telecommunications Technology, ICT41119 Certificate IV in Telecommunications Network Design, and other qualifications that allow for selection the skill set's units.
ICTSS00190	IP Convergence Installation in Small to Medium Networks Skill Set	This skill set provides credit towards ICT20319 Certificate II in Telecommunications Technology and other

		qualifications that allow for selection the skill set's units.
ICTSS00191	Wireless LAN and IP Network Installation Skill Set	This skill set provides credit towards ICT20319 Certificate II in Telecommunications Technology, ICT30419 Certificate III in Telecommunications Network Build and Operation, ICT41219 Certificate IV in Telecommunications Engineering Technology, and other qualifications that allow for selection the skill set's units.

Access and equity considerations.

Access and equity relate to the approaches used to make sure training and assessment practices consider and respond to the individual support needs of learners so that potential learning barriers are eliminated or minimised. Individual support needs that learners could present with could relate to their:

- age
- gender
- cultural or ethnic background
- disability
- sexuality
- language, literacy or numeracy skills
- employment status
- geographical location.

The design and content of this training package supports equitable access and progression for all learners. It is the responsibility of the RTO delivering and assessing qualifications to:

- ensure that training and assessment processes and methods do not disadvantage individual learners
- determine the support needs of individual learners and to provide access to any educational and support services necessary.

Some practical ways that access and equity issues could be addressed include:

- modifying assessment processes and techniques for learners who are located at a distance from a campus location
- checking that materials are culturally appropriate for learners
- activities and assessments are suitable for the language, literacy and numeracy skill levels of learners (while meeting the requirements of the unit of competency).

Considerations specific to learners with disability

A legislative and regulatory framework underpins and supports the delivery of VET across Australia. Under this framework, VET providers must take steps to ensure that learners with recognised disabilities can access and participate in education and training on the same basis as learners without disabilities.

RTOs have obligations to support learners with disability under the Standards for RTOs 2015, Disability Discrimination Act 1992, and the Disability Standards for Education 2005. RTOs need to provide advice and information to learners with disability about the suitability of a course, any inherent requirements for the course, reasonable adjustments that can be made, and support that is available.

Training and assessment practices must give due consideration to learners with disability, and in particular recognise the diverse range of disabilities and individualised impact that disability has on learners. Disability is broad and diverse, and can include physical and learning disabilities, chronic medical condition, or mental illness. RTOs must take an individualised approach to supporting learners with disability, recognising that each learner's disability will be specific to that person, and will have a specific impact on their learning experience. An individual's disability may necessitate the implementation of specific supports to allow them to participate in learning.

It is recommended to ask universally (and also on an individual basis) whether a person requires adjustments to undertake their course. Make it clear that all personal information will be handled confidentially and that this question is only asked for the purposes of being able to offer support and arrange reasonable adjustments. Learners with disability do not have to disclose their disability, but by making it clear that disclosure is only for the purposes of providing support so they can access and participate in VET equally, learners are more likely to feel comfortable disclosing. If a learner does choose to disclose, they must be consulted to determine what supports, or reasonable adjustments should be put in place for them.

It is important that all staff are made aware of what their responsibilities are in negotiating and implementing adjustments and supports.

Examples of educational and support services that can assist learners with disability meet course requirements include:

- offering study support and skills programs, including language, literacy and numeracy (LLN) programs
- providing equipment, resources and/or programs to increase access for learners with disability
- using trained support staff including specialist teachers, note-takers and interpreters
- flexible scheduling and delivery of training and assessment, including allowing longer time where appropriate, and adjusting delivery methods and communication techniques
- providing learning and assessment materials in alternative formats.

Reasonable adjustment for learners with disability

Reasonable adjustments can be made to the learning environment, training delivery, learning resources and/or assessment tasks to accommodate the support needs of a learner with disability. The purpose of reasonable adjustments is to make it possible for learners to participate fully. It is not to give learners with additional or different needs an advantage over others, to change course standards or outcomes, or to guarantee success.

A reasonable adjustment in learning and assessment activity needs to be justifiable and uphold the integrity of the unit/qualification. An adjustment is reasonable if it can accommodate the learner's

support needs while also considering factors such as the views of the learner, the potential effect of the adjustment on the learner and others, the costs and benefits of making the adjustment. Reasonable adjustments should be negotiated on an individualised basis, recognising that each person with disability will have specific learning needs and requirements for adjustment.

Inherent requirements are the fundamental parts of a course that must be met by all learners in order for them to be deemed competent. They are the abilities, skills and knowledge learners need to undertake the course — those components which, if removed, would compromise the learning outcomes. Learners with disability should be provided with reasonable adjustments to enable them to meet these inherent requirements, provided this would not cause unjustifiable hardship to the RTO. However, if a learner cannot meet the inherent requirements, even with adjustments, then they cannot undertake the course. Learners should be given as much information as possible to allow them to make informed decisions about whether they will be able to meet inherent course requirements.

Adjustments must:

- be discussed with and agreed to by the learner with disability
- benefit the learner with disability
- maintain the integrity of the competency standards
- be a reasonable expectation in a workplace or training and assessment environment.

Adjustments are not required if they could:

- cause the RTO unjustifiable hardship
- harm other learners.

Making reasonable adjustments requires the RTO to balance the need for change with the expense or effort involved in making this change. If an adjustment requires a disproportionately high expenditure or disruption, it is not likely to be reasonable.

Reasonable adjustments can encompass a range of areas including the physical environment, teaching delivery and format, utilisation of assistance equipment and reduction of study load. Examples of reasonable adjustments that can assist learners with disability to participate fully in training and assessment include:

- accessible classrooms
- changes to class scheduling
- note-taking or interpreting support
- modification to presentation mediums and techniques or teaching practices
- course materials, information and learning tasks in alternative formats
- alternative assessment formats, timeframes or tasks
- availability of assistive technologies or specialised equipment
- allowing a carer or support person to be present in the learning environment.

Additional resources

The following resources can provide further information about different types of disability, as well as additional guidance and support for meeting the needs of learners with disability:

- the Australian Disability Clearinghouse on Education and Training (ADCET)
- the Australian Human Rights Commission
- National Disability Coordination Officers.

RTO support services, access and equity or disability departments can also provide guidance on supporting and including learners with disability.

Foundation Skills

Foundation skills are the non-technical skills that support an individual's participation in the workplace, in the community and in education and training. They describe the language, literacy, numeracy (LLN) and employment skills that are essential to performance and are explicitly identified in the foundation skills field of a unit of competency, which:

- identifies the essential foundation skills that are not explicit in the performance criteria of the unit
- describes the application of each skill in context of the performance criteria
- should be considered as an integrated part of the unit for assessment purposes.

The language, literacy and numeracy skills are represented by the five core skills set out in the Australian Core Skills Framework (ACSF): Learning, reading, writing, oral communication and numeracy.

The employment skills are described using either:

- the skills set out in the employability skills framework: Teamwork, Initiative and enterprise, Planning and organising, Problem solving, Self-management, and Technology; or
- the core skills for work set out in the Core Skills for Work developmental framework: Navigate the world of work, Interact with others, and Get the work done.

Advice on any health and safety implications in the industry

Work health and safety (WHS) requirements are covered either by:

- embedding requirements in the elements/performance criteria of units of competency
- including specific WHS units in qualifications.

In jurisdictions where model WHS laws have not been implemented, RTOs are advised to contextualise units of competency by referring to the existing WHS legislative requirements.

Resource and equipment list relevant to the Training Package

Resource and equipment requirements

RTOs must make sure that all resources and equipment required to train and assess units of competency are available.

Details of specific resources, including equipment and materials essential for assessment, are listed in the Assessment conditions sections of the assessment requirements for each unit of competency.

Legal considerations for learners in the workplace/on placements

Legal requirements that apply to specific industries and VET vary across each state and territory and can regularly change. Contact the relevant state or territory department/s to check what legal requirements apply.

Other information relevant to implementation of the Training Package

All Companion Volumes can be found on the VETNet website:
https://vetnet.gov.au/Pages/default.aspx

Australian Qualifications Framework: Second edition, January 2013 https://www.aqf.edu.au/
Australian Skills Quality Authority (ASQA) https://www.asqa.gov.au/
Jobs and Skills Australia https://www.jobsandskills.gov.au/
Jobs and Skills Council https://www.dewr.gov.au/skills-reform/jobs-and-skills-councils
TGA website, training packages https://training.gov.au/
Training Accreditation Council (Western Australia) https://www.wa.gov.au/organisation/training-accreditation-council
Victorian Registration and Qualifications Authority (VRQA) https://www2.vrqa.vic.gov.au/

State and Territory Training Authority
Australian Capital Territory https://www.education.act.gov.au/
New South Wales https://education.nsw.gov.au/
Northern Territory https://business.nt.gov.au/
Queensland https://desbt.qld.gov.au/training
South Australia https://statedevelopment.sa.gov.au/
Tasmania http://www.skills.tas.gov.au/
Victoria https://www.vic.gov.au/education/
Western Australia https://www.wa.gov.au/organisation/department-of-training-and-workforce-development

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