



Australian Government

Department of Education, Employment and Workplace Relations

ICT30210 Certificate III in Telecommunications

Release: 1

ICT30210 Certificate III in Telecommunications

Modification History

Not Applicable

Description

Descriptor

This qualification reflects the role of an operator in the telecommunications industry who can apply a broad range of competencies using a defined range of skills where some discretion and judgement is required in the selection, installation and configuration of equipment in convergence technologies that integrate radio, optical and internet protocol (IP) based applications.

This role includes assessing installation requirements, planning and performing installations, testing installed equipment and fault finding. It involves a degree of autonomy and may include some supervision of others involving known routines and procedures and some accountability for the quality of outcomes.

This qualification prepares an individual for entry to the industry into the mainstream of telecommunications convergence technologies of radio, optical, data and IP networks.

Job Roles

Job roles and titles vary across different sectors of the industry. Possible job titles relevant to this qualification include:

- telecommunications network equipment installer
- telecommunications voice and data equipment installer
- IP based security alarms installer
- telecommunications equipment operator
- telecommunications tradesperson.
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Prerequisite requirements

There are no prerequisite requirements for individual units of competency.

Pathways Information

Qualification Pathways

Pathways into the qualification

Preferred pathways for candidates considering this qualification include:

- after achieving a Certificate II qualification from this or another accredited Training Package or accredited course

or

- with substantial vocational experience but without a formal qualification.

Pathways from the qualification

After achieving the ICT30210 Certificate III in Telecommunications, candidates seeking to develop more specialised technical skills and knowledge, may select from a range of Certificate IV qualifications in the ICT10 Integrated Telecommunications Training Package.

Licensing/Regulatory Information

Licensing, legislative, regulatory or certification considerations

All training programs must be undertaken with reference to the regulatory regime of the prevailing statutory authority (currently ACMA).

National Code of Practice for Induction for Construction Work

Some cabling and installation work may fall within the definition of construction work. If so, people entering the construction site are required to complete the general induction training program specified by the National Code of Practice for Induction Training for Construction Work (Australian Safety Compensation Council, May 2007).

Achievement of the unit CPCCOHS1001A Work safely in the construction industry from the CPC08 Construction and Plumbing Services Integrated Framework Training Package fulfils this requirement.

Prerequisite units

A number of units within this qualification have prerequisites. These are detailed as follows:

Code and Title	Prerequisite unit/s required
ICTCBL2137A Install, maintain and modify customer premises communications cabling: ACMA Open Rule	ICTCBL2136A Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule

ICAI3110C Implement system software changes	ICAI3020B Install and optimise operating system software
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Entry Requirements

Entry requirements

There are no entry requirements for this qualification.

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

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Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	• conveying information to clients, colleagues and other site personnel • completing job reports and compliance forms • communicating with customers to arrange time and access for the installation of systems and equipment • documenting and communicating work-related information, including reporting of faults and problems • providing feedback to customers on operating the equipment
Teamwork	• participating in a team structure by identifying team members, tasks and goals and recognising and responding positively to conflict • working with team members to work with clients and install equipment • relating personal role to the industry • applying interpersonal skills with clients, employer, supervisors, work associates, team members and other contractors • giving and receiving feedback to assist in meeting team and organisation goals
Problem solving	• identifying barriers to installation and developing strategies to overcome them within time and budget restrictions • identifying faults or optimisation options • rectifying faults and adjusting system to optimal operation • determining cable routes taking into account building services, safety, industry codes and practices, and customer requirements • following up promptly on difficulties and known problem areas • ranking likely causes of fault in order of probability to ensure a methodical approach to fault identification
Initiative and enterprise	• identifying barriers to installation and developing strategies to overcome them within time and budget restrictions • adapting plan to suit specific features of site • identifying issues and possible solutions within established guidelines
Planning and organising	• gathering data for the installation of systems and equipment • developing a plan for the recovery of equipment from customer premises • planning the installation of cable, taking into account technical, scheduling and financial considerations • interpreting design and relating to site characteristics • prioritising work according to organisation guidelines

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

Self-management	• developing installation plans to ensure minimal disruption to the workplace • checking that tools and equipment are in safe working order and adjusted to manufacturer specification • applying all related OHS requirements and work practices, including job safety analysis (JSA), protective clothing and personal safety items • relating own role to the industry and establishing own work schedule • using strategies to present a professional image to customers • interpreting and applying relevant regulations and standards
Learning	• assessing customer's expertise and training needs and conducting training in the use of systems and equipment • making clients aware of opportunities that exist for system upgrades, additional services and training • seeking assistance from team members when necessary • giving and receiving feedback • providing suitable training and assessment opportunities for work team members • providing training to customers on system, product, product features and facilities
Technology	• installing and operating telecommunications broadband equipment and products • installing and operating CPE equipment and products • installing and configuring access network devices • checking tools and test equipment for accuracy • identifying, replacing or repairing faulty parts and equipment

Packaging Rules**Packaging Rules****Total number of units = 12****6 core units, plus****1 elective unit from Group A workplace units, plus****5 elective units from Group B general units**

Packaging Rules

Elective units must be relevant to the work outcome, local industry requirements and the qualification level.

A maximum of two units from Group B general elective units may be substituted with two units of competency from any endorsed Training Package or accredited course at Certificate III or Certificate IV level. One of those two units from Group B general elective units may be substituted from Group A workplace elective units where required by a specific job role.

Units selected from other Training Packages or accredited courses must not duplicate units selected from or available within the ICT10 Integrated Telecommunications Training Package.

CORE UNITS

BSBSUS301A Implement and monitor environmentally sustainable work practices

ICTBWN3205A Use optical and radio frequency measuring instruments

ICTOHS2170A Follow occupational and health and safety and environmental policy and procedures

ICTTEN2007A Use electrical skills in telecommunications work

ICTTEN2140A Use hand and power tools

ICTTEN3056A Install telecommunications network equipment

ELECTIVE UNITS**Group A - Workplace elective units**

BSBSMB305A Comply with regulatory, taxation and insurance requirements for the micro business

BSBSMB306A Plan a home based business

ICAS3031B Provide advice to clients

ICTEDU3053A Train customers

ICTWOR3028A Organise resources

ICTWOR3035A Organise material supply

ICTWOR3041A Schedule resources

ICTWOR3093A Manage spare parts

ICTWOR3127A Supervise worksite activities

ICTWOR3231A Resolve technical enquiries using multiple information systems

Packaging Rules

ICTWOR3232A Collect and analyse technical information

Group B - General elective units**Broadband and wireless networks**

ICTBWN3082A Perform tests on optical communication system and components

ICTBWN3088A Install optical fibre splitters in fibre distribution hubs

ICTBWN3090A Install lead-in module and cable for fibre to the premises

ICTBWN3100A Work safely with live fibre to test and commission a fibre to the x installation

Cabling

ICTCBL2065A Splice and terminate optical fibre cable for carriers or service providers

ICTCBL2136A Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule (where ACMA Restricted Registration is necessary)

ICTCBL2137A Install, maintain and modify customer premises communications cabling: ACMA Open Rule

ICTCBL2139A Apply safe technical work practices for cabling registration

ICTCBL3009A Install, terminate and certify structured cabling installation

ICTCBL3010A Install and terminate optical fibre cable on customer premises

ICTCBL3011A Install and terminate coaxial cable

ICTCBL3013A Perform cable and system test on customer premises

ICTCBL3014A Hand over systems and equipment

ICTCBL3015A Locate and identify cable system faults

ICTCBL3049A Install systems and equipment on customer premises

ICTCBL3052A Cut over new systems and equipment on customer premises

ICTCBL3069A Install network cable equipment

Digital reception technology

ICTDRE3156A Install digital reception equipment

ICTDRE3157A Locate and rectify digital reception equipment faults

ICTDRE3165A Install a complex digital reception system

Packaging Rules**ICT use**

ICAI3020B Install and optimise operating system software

ICAI3021B Connect internal hardware components

ICAI3101B Install and manage network protocols

ICAI3110C Implement system software changes

ICAS3024B Provide basic system administration

ICAS3234B Care for computer hardware

ICAT3025B Run standard diagnostic tests

ICAU3019B Migrate to new technology

Occupational health and safety

ICTOHS2153A Work safely near power infrastructure

CPCCOHS1001A Work safely in the construction industry

Radio frequency networks

ICTRFN3055A Install a radio communications antenna and feedline

ICTRFN3070A Install mobile telecommunications in motor vehicles

ICTRFN3146A Install WiMAX customer premises equipment broadband wireless access equipment

ICTRFN3155A Construct and test a radio communications device

ICTRFN3175A Operate and maintain radio communications technical instruments and field equipment

Telecommunications engineering networks

ICTTEN2105A Install and test an internet protocol device in convergence networks

ICTTEN3054A Provide infrastructure for telecommunications network equipment

ICTTEN3063A Locate, identify and rectify recurrent network faults

ICTTEN3074A Recover customer premises equipment

ICTTEN3075A Refurbish customer premises equipment

ICTTEN3077A Commission an electronic unit

ICTTEN3089A Repair and replace telecommunications network hardware

ICTTEN3104A Maintain an electronic system

Packaging Rules

ICTTEN4198A Install, configure and test an internet protocol network

Selecting electives for different outcomes

The context of this qualification varies and this must guide the selection of elective units.

The following examples are designed to assist in the selection of appropriate electives for particular outcomes at this level but they are in no way prescriptive.

Broadband optical network installer

Core units plus one Group A workplace elective unit plus:

- ICTBWN3082A Perform tests on optical communication system and components
- ICTBWN3088A Install optical fibre splitters in fibre distribution hubs
- ICTBWN3090A Install lead-in module and cable for fibre to the premises
- ICTBWN3100A Work safely with live fibre to test and commission a fibre to the x installation
- one additional unit from Group B general elective units or Group A workplace elective units as appropriate to the specific job role

Broadband wireless network installer

Core units plus one Group A workplace elective unit plus:

- ICTRFN3055A Install a radio communications antenna and feedline
- ICTRFN3146A Install WiMAX customer premises equipment broadband wireless access equipment
- ICTRFN3175A Operate and maintain radio communications technical instruments and field equipment
- two additional units from Group B general elective units, with a maximum of one of those additional units from Group A workplace elective units as appropriate to the specific job role

Home network installer

Core units plus one Group A workplace elective unit plus:

- ICTDRE3156A Install digital reception equipment
- ICTDRE3157A Locate and rectify digital reception equipment faults
- ICTDRE3165A Install a complex digital reception system
- ICTTEN4198A Install, configure and test an internet protocol network
- one additional unit from Group B general elective units or Group A workplace

Packaging Rules

elective units as appropriate to the specific job role

IP equipment installer

Core units plus one Group A workplace elective unit plus:

- ICAI3020B Install and optimise operating system software
- ICAI3101B Install and manage network protocols
- ICAI3110C Implement system software changes
- ICAT3025B Run standard diagnostic tests
- ICTTEN4198A Install, configure and test an internet protocol network

Network infrastructure installer

Core units plus one Group A workplace elective unit plus:

- ICTCBL3009A Install, terminate and certify structured cabling installation
- ICTCBL3011A Install and terminate coaxial cable
- ICTCBL3069A Install network cable equipment
- two additional units from Group B general elective units, with a maximum of one those additional units from Group A workplace elective units as appropriate to the specific job role

Technical support

Core units plus one Group A workplace elective unit plus:

- ICAS3024B Provide basic system administration
- ICAS3031B Provide advice to clients
- ICTWOR3231A Resolve technical enquiries using multiple information systems
- ICTWOR3232A Collect and analyse technical information
- one additional unit from Group B general elective units or Group A workplace elective units as appropriate to the specific job role

Voice and data installer

Core units plus one Group A workplace elective unit plus:

- ICTCBL3009A Install, terminate and certify structured cabling installation
- ICTCBL3010A Install and terminate optical fibre cable on customer premises
- ICTCBL3011A Install and terminate coaxial cable
- two additional units from Group B general elective units, with a maximum of one of those additional units from Group A workplace elective units as appropriate to the specific job role

