ICT20113 Certificate II in Telecommunications Technology

Modification History

Release	Comments
Release 2	This version first released with ICA10 Integrated Telecommunications Training Package Version 3.0.
	Change in WHS core unit.
Release 1	This version first released with ICT10 Integrated Telecommunications Training Package Version 1.0.

Description

This qualification has been designed as a pathway for students for entry to the industry.

This qualification provides students with skills and knowledge to enhance their entry-level employment prospects in apprenticeships and traineeships in a range of industries, including telecommunications, information technology and electronics.

Cabling Technician Stream

This qualification reflects the role of operators in the telecommunications industry who apply a broad range of competencies in a varied work context of installation of telecommunications and data cabling and cabling products on customer premises according to requirements of the Australian Communications and Media Authority (ACMA) and relevant industry registration bodies, and in line with the specifications of the access network owner.

Digital Reception Stream

This qualification reflects the role of operators in the telecommunications industry who apply a broad range of competencies in a varied work context of installation of a limited range of digital reception equipment for either a customer or an enterprise. They would perform limited fault finding on a range of digital reception equipment for both cable TV and free to air TV reception.

Networking Stream

This qualification reflects the role of operators in the telecommunications industry who apply a broad range of competencies of converging technologies in a varied work context to install and maintain IP networks with security in the home and small to medium enterprise networks. They would install software, and configure and test emerging technology network elements in IP networks, including secure wireless LANs, servers and routers for enterprise networks.

Job Roles

Job roles and titles vary across different industry sectors. Dependent on the stream completed, possible job titles relevant to a pathway for this qualification include:

- cabler and installer
- data cabler
- equipment installer
- IP-based network installer
- SME business network installer
- subscription TV installer
- telecommunications equipment operator
- TV and digital TV antenna installer.

Prerequisite requirements

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There are no prerequisite requirements for individual units of competency.

Pathways Information

Pathways into the qualification

Candidates may enter this qualification with limited or no vocational experience and without a relevant lower level qualification.

Pathways from the qualification

After achieving ICT20113 Certificate II in Telecommunications Technology, candidates may undertake ICT30213 Certificate III in Telecommunications, a qualification for those seeking to develop more specialised technical skills and knowledge, or a range of other Certificate III qualifications.

Licensing/Regulatory Information

The completion of unit ICTWHS2170B and the four unit set ICTCBL2005B, ICTCBL2006B, ICTCBL2008B and ICTCMP2022B meets the ACMA requirements for Cabling Provider Rules (CPR) restricted registration.

All training programs are 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, Plumbing and Services Training Package fulfils this requirement.

Entry Requirements

There are no entry requirements for this qualification.

Employability Skills Summary

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	documenting and communicating work-related information, including reporting of faults and problems
Teamwork	participating in a team structure by identifying team members, tasks and goals and recognising and responding positively to conflict
Problem solving	determining cable routes, taking into account building services, safety, industry codes and practices, and customer requirements
	determining IP network configurations to suit the SME business requirements
	assessing the compatibility and interoperability of proposed network installation to existing network
	following up promptly on difficulties and known problem areas
Initiative and enterprise	reading and understanding plans and designs to acknowledge local physical conditions
	identifying issues and possible solutions within established guidelines
Planning and organising	planning and organising installation and operation of telecommunications equipment and products
	planning and setting up the addressing scheme to allow for enterprise network growth
Self-management	relating own role to the industry and establishing own work schedule
	applying all related WHS requirements and work practices
Learning	seeking assistance from team members
	giving and receiving feedback
	• interpreting technical information from vendor installation instructions
Technology	configuring, installing and testing IP-based customer telecommunications network equipment
	implementing security measures to meet the SME network requirements

Packaging Rules

Total number of units = 11 5 core units, plus 6 elective units from Group A, or 6 elective units from Group B, or 6 elective units from Group C

There is no substitution of elective units.

CORE UNITS

BSBSUS201A Participate in environmentally sustainable work practices ICTTEN2008A Use electrical skills in telecommunications work ICTTEN2219A Install and test internet protocol devices in convergence networks ICTTEN2140B Use hand and power tools ICTWHS2170B Follow work health and safety and environmental policies and procedures

ELECTIVE UNITS

Group A - Cabling Technician Stream (Restricted Registration)

BSBCUS201B Deliver a service to customers
ICTCBL2005B Install customer cable support systems
ICTCBL2006B Place and secure customer cable
ICTCBL2008B Terminate metallic conductor customer cable
ICTCBL3049A Install systems and equipment on customer premises
ICTCMP2022B Organise and monitor cabling to ensure compliance with regulatory and industry standards

Group B - Digital Reception Stream

ICTCBL2163A Install a cable lead-in
ICTCBL3011B Install and terminate coaxial cable
ICTDRE3156B Install digital reception equipment
ICTDRE3157B Locate and rectify digital reception equipment faults
ICTRFN2163B Install a satellite antenna
ICTRFN2164B Install a terrestrial antenna

Group C - Networking Stream

ICAICT206A Install software applications
ICASAS203A Connect hardware peripherals
ICTTEN2207A Install and configure a home or small office network
ICTTEN2208A Install and configure a small to medium business network
ICTTEN2209A Build and maintain a secure network
ICTTEN2218A Operate new media software packages

ICT20213 Certificate II in Telecommunications

Modification History

Release	Comments
Release 2	This version first released with ICT10 Integrated Telecommunications Training Package Version 3.0.
	Change in WHS core unit.
Release 1	This version first released with ICT10 Integrated Telecommunications Training Package Version 1.0.

Description

This qualification reflects the role of an operator in the telecommunications industry who can apply a broad range of competencies in a varied work context from installation to operation of telecommunications equipment and products.

Cabling at the customer premises must be carried out according to requirements of the Australian Communications and Media Authority (ACMA) and relevant industry registration bodies, and in line with the specifications of the access network owner.

This qualification prepares an individual for entry to the industry.

Job Roles

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

- cabler and installer
- equipment installer
- security alarm installer
- telecommunications equipment operator
- telecommunications tradesperson.

Prerequisite requirements

There are no prerequisite requirements for individual units of competency.

Pathways Information

Pathways into the qualification

Candidates may enter this qualification with limited or no vocational experience and without a relevant lower level qualification.

Pathways from the qualification

After achieving ICT20213 Certificate II in Telecommunications, candidates may undertake ICT30213 Certificate III in Telecommunications, a qualification for those seeking to develop more specialised technical skills and knowledge, or a range of other Certificate III qualifications.

Licensing/Regulatory Information

The completion of unit ICTWHS2170B and the four unit set ICTCBL2005B, ICTCBL2006B, ICTCBL2008B and ICTCMP2022B that meets the ACMA requirements for Cabling Provider Rules (CPR) restricted registration, is generally used as a part of a more specialised customer cabling qualification. This set is regarded as more suitable for new entrants where limited or no industry experience has been obtained and forms the major part of specialised qualifications such as ICT20313 Certificate II in Telecommunications Cabling.

For cablers with restricted CPR qualifications there will be a requirement for the specialised competency unit ICTCMP2239B Perform restricted customer premises broadband cabling work: ACMA Restricted Rule to be achieved when working on specialised broadband cabling.

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, Plumbing and Services Training Package fulfils this requirement.

Entry Requirements

There are no entry requirements for this qualification.

Employability Skills Summary

Employability Skill	Industry/enterprise requirements for this qualification include:	
Communication	 confirming approval for time and method of site access with customers documenting and communicating work-related information, including reporting of faults and problems 	
Teamwork	participating in a team structure by identifying team members, tasks and goals and recognising and responding positively to conflict	
Problem solving	 determining network equipment power consumption and current from measurements and specification data evaluating probable solutions to faults involving telecommunications networks and equipment 	
Initiative and enterprise	 reading and understanding plans and designs to acknowledge local physical conditions identifying issues and possible solutions within established guidelines 	
Planning and organising	planning and organising installation and operation of telecommunications equipment and products	
Self-management	 relating own role to the industry and establishing own work schedule using strategies to present a professional image to customers 	
Learning	seeking assistance from team membersgiving and receiving feedback	
Technology	installing and operating telecommunications equipment and products	

Packaging Rules

Total number of units = 11
5 core units, plus
1 elective unit from Group A workplace units, plus
5 elective units from Group B general units

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 II or Certificate III level.

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

If the four unit set ICTCBL2005B, ICTCBL2006B, ICTCBL2008B and ICTCMP2022B has been selected, unit ICTCBL2136B cannot also be selected as an elective unit.

CORE UNITS

BSBSUS201A Participate in environmentally sustainable work practices ICTTEN2008A Use electrical skills in telecommunications work ICTTEN2140B Use hand and power tools ICTTEN2219A Install and test internet protocol devices in convergence networks ICTWHS2170B Follow work health and safety and environmental policies and procedures

ELECTIVE UNITS

Group A - Workplace elective units

BSBCUS201B Deliver a service to customers BSBSMB306A Plan a home based business ICTWOR2141A Work effectively in a telecommunications technology team

Group B - General elective units

Cabling

ICTCBL2005B Install customer cable support systems

ICTCBL2006B Place and secure customer cable

ICTCBL2008B Terminate metallic conductor customer cable

ICTCBL2016A Joint metallic conductor cable on customer premises

ICTCBL2017B Alter services to existing cable system

ICTCBL2064A Haul underground cable

ICTCBL2066B Joint and terminate coaxial cable

ICTCBL2068A Install a telecommunications service to a building

ICTCBL2131A Install an above ground equipment enclosure

ICTCBL2132A Erect aerial cable supports

ICTCBL2133A Construct underground telecommunications infrastructure

ICTCBL2134A Fix aerial cable

ICTCBL2136B Install, maintain and modify customer premises communications cabling:

ACMA

Restricted Rule

ICTCBL2139B Apply safe technical work practices for cabling registration when configuring ADSL circuits

ICTCBL2163A Install a cable lead-in

Compliance

ICTCMP2239B Perform restricted customer premises broadband cabling work: ACMA Restricted Rule

ICTCMP2022B Organise and monitor cabling to ensure compliance with regulatory and industry standards

Digital reception technology

ICTCBL2163A Install a cable lead-in ICTRFN2163B Install a satellite antenna ICTRFN2164B Install a terrestrial antenna

ICT use

ICAICT206A Install software applications ICASAS203A Connect hardware peripherals

Occupational health and safety

CPCCOHS1001A Work safely in the construction industry ICTOHS2153B Work safely near power infrastructure ICTOHS2080A Provide telecommunications services safely on roofs

Project management

ICTPMG2130A Prepare site for support installation ICTPMG2173A Plan, organise and undertake work activities

Radio frequency networks

ICTRFN2163B Install a satellite antenna ICTRFN2164B Install a terrestrial antenna

Telecommunications engineering networks

ICTTEN3056A Install telecommunications network equipment ICTTEN3074A Recover customer premises equipment

(IP networks)

ICTTEN2207A Install and configure a home or small office network ICTTEN2208A Install and configure a small to medium business network ICTTEN2209A Build and maintain a secure network ICTTEN2218A Operate new media software packages

ICT20313 Certificate II in Telecommunications Cabling

Modification History

Release	Comments
Release 2	This version first released with ICT10 Integrated Telecommunications Training Package Version 3.0.
	Change in WHS core unit.
Release 1	This version first released with ICT10 Integrated Telecommunications Training Package Version 1.0.

Description

This qualification reflects the role of an operator in the telecommunications industry who can apply a broad range of competencies in a varied work context of installation of telecommunications and data cabling and cabling products on customer premises.

Cabling at the customer premises must be carried out according to requirements of the Australian Communications and Media Authority (ACMA) and relevant industry registration bodies, and in line with the specifications of the access network owner.

This qualification prepares an individual for entry to the industry.

Job Roles

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

- data cabler
- carrier services cabler
- security alarm cabler
- telecommunications access network cabler
- telecommunications tradesperson
- infrastructure cabler.

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Prerequisite units

The following units within this qualification have prerequisites. This is detailed as follows:

Code and title	Prerequisite unit required
ICTCBL2137B Install, maintain and modify customer premises communications cabling: ACMA Open Rule	ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule

Pathways Information

Pathways into the qualification

Candidates may enter this qualification with limited or no vocational experience and without a relevant lower level qualification.

Pathways from the qualification

After achieving ICT20313 Certificate II in Telecommunications Cabling, candidates may undertake ICT30313 Certificate III in Telecommunications Cabling, a qualification for those seeking to develop more specialised technical skills and knowledge, or a range of other Certificate III qualifications.

Licensing/Regulatory Information

The completion of unit ICTWHS2170B and the six unit set ICTCBL2005B, ICTCBL2006B, ICTCBL2008B, ICTCBL2012B, ICTCBL2017B and ICTCMP2022B that meets the Australian Communications and Media Authority (ACMA) requirements for Cabling Provider Rules (CPR) open registration, is generally used as a part of a more specialised customer cabling qualification. This set is regarded as more suitable for new entrants where limited or no industry experience has been obtained and forms the major part of specialised qualifications in this qualification.

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, Plumbing and Services Training Package fulfils this requirement.

Entry Requirements

There are no entry requirements for this qualification.

Employability Skills Summary

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	confirming approval for time and method of site access with customers
	documenting and communicating work-related information, including reporting of faults and problems
Teamwork	participating in a team structure by identifying team members, tasks and goals and recognising and responding positively to conflict
Problem solving	determining cable routes, taking into account building services, safety, industry codes and practices, and customer requirements
	evaluating earthing needs for cable systems on customer premises
	following up promptly on difficulties and known problem areas
Initiative and enterprise	reading and understanding plans and designs to acknowledge local physical conditions
	• identifying issues and possible solutions within established guidelines
Planning and organising	planning and organising installation and operation of telecommunications equipment and products
Self-management	• relating own role to the industry and establishing own work schedule
	• using strategies to present a professional image to customers
Learning	seeking assistance from team members
	giving and receiving feedback
	providing suitable training and assessment opportunities for work team members
Technology	installing and operating telecommunications customer equipment, customer products and test equipment

Packaging Rules

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

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 II or Certificate III level. One of those two units from Group B general electives may be substituted with a Group A workplace elective unit 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.

If the six unit set ICTCBL2005B, ICTCBL2006B, ICTCBL2008B, ICTCBL2012B, ICTCBL2017B and ICTCMP2022B has been selected, units ICTCBL2136B and ICTCBL2137B cannot also be selected as elective units.

CORE UNITS

BSBSUS201A Participate in environmentally sustainable work practices ICTTEN2008A Use electrical skills in telecommunications work ICTTEN2140B Use hand and power tools ICTTEN2219A Install and test internet protocol devices in convergence networks ICTWHS2170B Follow work health and safety and environmental policies and procedures

ELECTIVE UNITS

Group A - Workplace elective units

BSBCUS201B Deliver a service to customers

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

BSBSMB306A Plan a home based business

ICTSMB4160A Set up and operate a contractor business

ICTWOR2141A Work effectively in a telecommunications technology team

Group B - General elective units

Cabling

ICTCBL2005B Install customer cable support systems ICTCBL2006B Place and secure customer cable

ICTCBL2008B Terminate metallic conductor customer cable

ICTCBL2012B Install functional and protective telecommunications earthing system

ICTCBL2016A Joint metallic conductor cable on customer premises

ICTCBL2017B Alter services to existing cable system

ICTCBL2064A Haul underground cable

ICTCBL2065B Splice and terminate optical fibre cable for carriers and service providers

ICTCBL2066B Joint and terminate coaxial cable

ICTCBL2068A Install a telecommunications service to a building

ICTCBL2131A Install an above ground equipment enclosure

ICTCBL2132A Erect aerial cable supports

ICTCBL2133A Construct underground telecommunications infrastructure

ICTCBL2134A Fix aerial cable

ICTCBL2135A Joint metallic conductor cable in access network

ICTCBL2136B Install, maintain and modify customer premises communications cabling:

ACMA Restricted Rule

ICTCBL2137B Install, maintain and modify customer premises communications cabling:

ACMA Open Rule

ICTCBL2138A Install, maintain and modify customer premises communications cabling:

ACMA Lift Rule

ICTCBL2139B Apply safe technical work practices for cabling registration when configuring ADSL circuits

ICTCBL2163A Install a cable lead-in

ICTCBL3009B Install, terminate and certify structured cabling installation

Compliance

ICTCMP2239B Perform restricted customer premises broadband cabling work: ACMA Restricted Rule

ICTCMP2022B Organise and monitor cabling to ensure compliance with regulatory and industry standards

Occupational health and safety

CPCCOHS1001A Work safely in the construction industry ICTOHS2080A Provide telecommunications services safely on roofs ICTOHS2153B Work safely near power infrastructure

Project management

ICTPMG2130A Prepare site for support installation ICTPMG2173A Plan, organise and undertake work activities

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.

Access network cabler

Core units plus one Group A workplace elective unit plus:

- ICTCBL2065B Splice and terminate optical fibre cable for carriers and service providers
- ICTCBL2135A Joint metallic conductor cable in access network
- ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule
- ICTCBL2137B Install, maintain and modify customer premises communications cabling: ACMA Open Rule
- ICTCBL2139B Apply safe technical work practices for cabling registration when configuring ADSL circuits
- plus one additional unit from Group B general elective unit as appropriate to the specific job role

CPE cabler for Open Registration (new entrant)

Core units plus one Group A workplace elective unit plus:

- ICTCBL2005B Install customer cable support systems
- ICTCBL2006B Place and secure customer cable
- ICTCBL2008B Terminate metallic conductor customer cable
- ICTCBL2012B Install functional and protective telecommunications earthing system
- ICTCBL2017B Alter services to existing cable system
- ICTCMP2022B Organise and monitor cabling to ensure compliance with regulatory and industry standards

CPE cabler for Open Registration

Core units plus one Group A workplace elective unit plus:

- ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule
- ICTCBL2137B Install, maintain and modify customer premises communications cabling: ACMA Open Rule
- ICTCBL2139B Apply safe technical work practices for cabling registration when configuring ADSL circuits
- plus three additional units from Group B general elective units, with a maximum of one of those units from Group A workplace elective units as appropriate to the specific job role

Network infrastructure or security cabler

Core units plus one Group A workplace elective unit plus:

- ICTCBL2066B Joint and terminate coaxial cable
- ICTCBL3009B Install, terminate and certify structured cabling installation
- ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule
- ICTCBL2139B Apply safe technical work practices for cabling registration when configuring ADSL circuits
- plus one additional unit from Group B general elective units and one unit from Group A workplace elective units as appropriate to the specific job role.

ICT20413 Certificate II in Telecommunications Digital Reception Technology

Modification History

Release	Comments
Release 2	This version first released with ICT10 Integrated Telecommunications Training Package Version 3.0.
	Change in WHS core unit.
Release 1	This version first released with ICT10 Integrated Telecommunications Training Package Version 1.0.

Description

This qualification reflects the role of an operator in the telecommunications industry who can apply a broad range of competencies in a varied work context of installation of a limited range of digital reception equipment for either a customer or an enterprise. They would perform limited fault finding on a range of digital reception equipment for both cable TV and free to air TV reception.

Cabling at the customer premises must be carried out according to requirements of the Australian Communications and Media Authority (ACMA) and relevant industry registration bodies, and in line with the specifications of the access network owner.

This qualification prepares an individual for entry to the industry.

Job Roles

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

- TV and digital TV antenna installer
- subscription TV installer
- satellite TV installer
- free to air TV installer.

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Prerequisite requirements

There are no prerequisite requirements for individual units of competency.

Pathways Information

Pathways into the qualification

Candidates may enter this qualification with limited or no vocational experience and without a relevant lower level qualification.

Pathways from the qualification

After achieving ICT20413 Certificate II in Telecommunications Digital Reception Technology, candidates may undertake ICT30413 Certificate III in Telecommunications Digital Reception Technology, a qualification for those seeking to develop more specialised technical skills and knowledge, or a range of other Certificate III qualifications.

Licensing/Regulatory Information

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, Plumbing and Services Training Package fulfils this requirement.

Entry Requirements

There are no entry requirements for this qualification.

Employability Skills Summary

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	 confirming approval for time and method of site access with customers documenting and communicating work-related information, including reporting of faults and problems providing correct literature to the customer, including explanatory booklets, manuals, training aids, user guides, equipment plans and configuration 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 applying interpersonal skills with clients, employer, supervisors, work associates, team members and other contractors
Problem solving	 determining cable routes and antenna siting 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 issues and possible solutions within established guidelines providing customers with temporary or replacement equipment similar to existing equipment regularly verifying continued existence of problem
Planning and organising	 planning and organising installation and operation of TV equipment and products prioritising work according to organisation guidelines
Self-management	 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

Employability Skill	Industry/enterprise requirements for this qualification include:	
	standards - applying all related WHS requirements and work practices	
Learning	 seeking assistance from team members 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 TV equipment and products checking tools and test equipment for accuracy identifying, replacing or repairing faulty parts and equipment 	

Packaging Rules

Total number of units = 12 8 core units, plus 1 elective unit from Group A workplace units, plus 1 elective unit from Group B specialist units, plus 2 elective units from Group C general units

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

A maximum of two units from Group C general elective units may be substituted with two units of competency from any endorsed Training Package or accredited course at Certificate II or Certificate III level. One of those two units from Group C general elective units may be substituted with a Group A workplace elective unit 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

BSBSUS201A Participate in environmentally sustainable work practices

ICTCBL3011B Install and terminate coaxial cable

ICTDRE3156B Install digital reception equipment

ICTDRE3157B Locate and rectify digital reception equipment faults

ICTTEN2008A Use electrical skills in telecommunications work

ICTTEN2140B Use hand and power tools

ICTTEN2219A Install and test internet protocol devices in convergence networks

ICTWHS2170B Follow work health and safety and environmental policies and procedures

ELECTIVE UNITS

Group A - Workplace elective units

BSBCUS201B Deliver a service to customers

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

BSBSMB306A Plan a home based business

ICTEDU3053A Train customers in new technology

ICTPMG2173A Plan, organise and undertake work activities

ICTSMB4160A Set up and operate a contractor business

ICTWOR2141A Work effectively in a telecommunications technology team

Group B - Specialist elective units

ICTCBL2163A Install a cable lead-in

ICTRFN2163B Install a satellite antenna

ICTRFN2164B Install a terrestrial antenna

Group C - General elective units

Cabling

ICTCBL2016A Joint metallic conductor cable on customer premises

ICTCBL2017B Alter services to existing cable system

ICTCBL2066B Joint and terminate coaxial cable

ICTCBL2136B Install, maintain and modify customer premises communications cabling:

ACMA Restricted Rule

ICTCBL2139B Apply safe technical work practices for cabling registration when configuring ADSL circuits

ICTCBL3015A Locate and identify cable system faults

Compliance

ICTCMP2022B Organise and monitor cabling to ensure compliance with regulatory and industry standards

ICT use

ICAICT206A Install software applications ICASAS203A Connect hardware peripherals

Occupational health and safety

ICTOHS2080A Provide telecommunications services safely on roofs ICTOHS2153B Work safely near power infrastructure CPCCOHS1001A Work safely in the construction industry

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.

Antenna installer

Core units plus one Group A workplace elective unit plus:

- ICTRFN2164B Install a terrestrial antenna
- two Group C general elective units

Contractor

Core units plus one Group B specialist elective unit as appropriate to the specific job role plus:

- ICTSMB4160A Set up and operate a contractor business
- two Group C general elective units

Free to air TV installer

Core units plus one Group A workplace elective unit plus:

- ICTRFN2163B Install a satellite antenna
- two Group C general elective units

Subscription TV installer

Core units plus one Group A workplace elective unit plus:

- ICTCBL2163A Install a cable lead-in
- two Group C general elective units

ICT20513 Certificate II in Telecommunications Fixed Wireless and Rigging Installation

Modification History

Release	Comments
Release 2	This version first released with ICT10 Integrated Telecommunications Training Package Version 3.0.
	Units updated to current versions.
Release 1	This qualification first released with ICT10 Integrated Telecommunications Training Package Version 2.0.

Description

This qualification reflects the role of an operator in the telecommunications industry who can apply a broad range of competencies in a varied work context from installation and maintenance of telecommunications equipment installed in base stations or mounted on structures requiring rigging skills.

This qualification has two streams that prepare an individual for entry to the industry in a specialised area of installation of telecommunication equipment on high structures including radio towers or for installation and connection of wireless base stations.

An operator uses rigging skills to install and maintain radio antennas on radio towers and build and mount sections of radio masts for a complete radio structure.

Job roles

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

- installer of radio telecommunications equipment on structures
- installer of radio equipment and cabling on radio towers
- installer of radio base stations
- telecommunications rigger tradesperson.

Pathways Information

Pathways into the qualification

Candidates may enter this qualification with limited or no vocational experience and without a relevant lower level qualification.

Pathways from the qualification

After achieving the ICT20513 Certificate II in Telecommunications Rigging Installation, candidates may undertake the ICT30513 Certificate III in Telecommunications Rigging Installation, a qualification for those seeking to develop more specialised technical skills and knowledge, or a range of other Certificate III qualifications.

Licensing/Regulatory Information

Cabling

The completion of unit ICTWHS2170B, ICTWHS2170A or ICTOHS2170A and the set of the following four units ICTCBL2005B, ICTCBL2006B, ICTCBL2008B and ICTCMP2022B that meet the Australian Communications and Media Authority (ACMA) requirements for Cabling Provider Rules (CPR) restricted registration, is generally used as a part of a more specialised customer cabling qualification. This set is regarded as more suitable for new entrants where limited or no industry experience has been obtained and forms the major part of specialised qualifications such as ICT20310 Certificate II in Telecommunications Cabling.

For cablers with restricted CPR qualifications there will be a requirement for the specialised competency unit ICTCMP2239B Perform restricted customer premises broadband cabling work: ACMA Restricted Rule, to be achieved when working on specialised broadband cabling.

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

National Standard for Licensing Persons Performing High Risk Work

The National Standard for Licensing Persons Performing High Risk Work applies to persons performing dogging and rigging work. Completion of the following units is required for certification at either basic, intermediate or advanced levels.

- CPCCLDG3001A Licence to perform dogging
- CPCCLRG3001A Licence to perform rigging basic level
- CPCCLRG3002A Licence to perform rigging intermediate level
- CPCCLRG4001A Licence to perform rigging advanced level

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).

Volume of Learning

The volume of learning of a Certificate II is typically 0.5 - 1 year.

Entry Requirements

There are no entry requirements for this qualification.

Employability Skills Summary

Employability skill	Industry/enterprise requirements for this qualification include:		
Communication	confirming approval for time and method of site access with customers		
	documenting and communicating work-related information, including reporting of faults and problems		
Teamwork	participating in a team structure by identifying team members, tasks and goals and recognising and responding positively to conflict		
Problem solving	determining cable routes, taking into account building services, safety, industry codes and practices, and customer requirements		
	evaluating earthing needs for cable systems on customer premises		
Initiative and enterprise	 reading and understanding plans and designs to acknowledge local physical conditions identifying issues and possible solutions within established 		
	guidelines		
Planning and organising	planning and organising installation and operation of telecommunications equipment and products		
Self-management	relating own role to the industry and establishing own work schedule		
	• using strategies to present a professional image to customers		
Learning	seeking assistance from team members		
6	giving and receiving feedback		
Technology	installing and operating telecommunications equipment and products		

Packaging Rules

Total number of units = 13 6 core units, *plus* 7 elective units, *of which:*

- 4 units from Group A Fixed wireless or Group B Rigging installation
- 3 units must be from Group C General elective units, up to 2 of which may be substituted with two units from elsewhere in this Training Package, another Training Package or accredited course at Certificate II or III level.

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

If the four unit set ICTCBL2005B, ICTCBL2006B, ICTCBL2008B and ICTCMP2022B has been selected, unit ICTCBL2136B cannot also be selected as an elective unit.

Core units

CPCCOHS1001A Work safely in the construction industry
ICTTCR2189A Use operational safety in a telecommunications rigging environment
ICTTEN2008A Use electrical skills in telecommunications work
ICTTEN2140B Use hand and power tools
ICTWHS2170B Follow work health and safety and environmental policies and procedures
ICTWOR2141A Work effectively in a telecommunications technology team

Elective units

Group A Fixed wireless specialist stream

ICTCBL2012B Install functional and protective telecommunications earthing system ICTRFN3055A Install a radio communications antenna and feedline ICTRFN4177A Install radio communications base station equipment ICTTEN2219A Install and test an internet protocol device in convergence networks

Group B Rigging installation specialist stream

CPCCLDG3001A Licence to perform dogging
CPCCLRG3001A Licence to perform rigging basic level
ICTTCR2188A Use rigging practices and systems on telecommunications network structures
ICTTCR2190A Use safe rigging practices to climb and perform rescues on
telecommunications network structures

Group C General elective units

BSBCUS201B Deliver a service to customers BSBSUS201A Participate in environmentally sustainable work practices CPCCLRG3002A Licence to perform rigging intermediate level CPCCLRG4001A Licence to perform rigging advanced level

ICTCBL2005B Install customer cable support systems

ICTCBL2006B Place and secure customer cable

ICTCBL2008B Terminate metallic conductor customer cable

ICTCBL2016A Joint metallic conductor cable on customer premises

ICTCBL2017A Alter services to existing cable system

ICTCBL2065B Splice and terminate optical fibre cable for carriers and service providers

ICTCBL2066B Joint and terminate coaxial cable

ICTCBL2068A Install a telecommunications service to a building

ICTCBL2131A Install an above ground equipment enclosure

ICTCBL2132A Erect aerial cable supports

ICTCBL2133A Construct underground telecommunications infrastructure

ICTCBL2134A Fix aerial cable

ICTCBL2136B Install, maintain and modify customer premises communications cabling:

ACMA Restricted Rule

ICTCBL2139B Apply safe technical work practices for cabling registration

ICTCBL2163A Install a cable lead-in

ICTCMP2022B Organise and monitor cabling to ensure compliance with regulatory and industry standards

ICTOHS2080A Provide telecommunications services safely on roofs

ICTOHS2153B Work safely near power infrastructure

ICTPMG2130A Prepare site for support installation

ICTPMG2173A Plan, organise and undertake work activities

ICTRFN2163B Install a satellite antenna

ICTRFN2164B Install a terrestrial antenna

ICTWHS2081A Work safely in a radio frequency electromagnetic radiation environment

Prerequisite Units

The following units in this qualification have the prerequisite units detailed below.

Code and title	Prerequisite units require	
CPCCLRG3002A Licence to perform rigging intermediate level	CPCCLRG3001A Licence to perform rigging basic level	
CPCCLRG4001A Licence to perform rigging advanced level	CPCCLRG3002A Licence to perform rigging intermediate level	

ICT20613 Certificate II in National Broadband Network Construction

Modification History

Release	Comments	
Release 2	This version first released with ICT10 Integrated Telecommunications Training Package Version 3.0.	
	Units updated to current versions.	
Release 1	This qualification first released with <i>ICT10 Integrated Telecommunications Training Package Version 2.0.</i>	

Description

This qualification has been designed as a pathway for entry into work on the National Broadband Network (NBN).

This qualification provides the skills and knowledge required to enhance entry-level employment prospects in apprenticeships and traineeships in a range of NBN industry occupations specifically for the national rollout of high speed broadband network infrastructure.

In conjunction with safe working practices, one of two specialist streams is to be undertaken as described:

Telecommunications linesworker

This stream reflects the role of operators in performing cable and infrastructure work underground. This involves safe civil and construction work in site preparation, building of enclosures, installing mounting brackets, hauling of underground cables and providing traffic management. It also reflects the role of operators in performing work safely aboveground to install fibre or metallic aerial cable and infrastructure. These will also include installation of aerial lead-in cables to customer premises.

Telecommunications installer

This stream reflects the role of operators in performing equipment and system installation work on customer network to enable efficient access and interconnection to the NBN services. This includes diagnosing and rectifying cable system faults to maximise benefits of the high speed broadband connection.

Job roles

Job roles and titles are dependent on the stream completed, possible job titles relevant to a pathway for this qualification include:

- telecommunications linesworker
- telecommunications broadband network installer.

Pathways Information

Pathways into the qualification

Candidates may enter this qualification with limited or no vocational experience and without a relevant lower level qualification.

Pathways from the qualification

After achieving the ICT20613 Certificate II in National Broadband Network Construction, candidates may undertake the ICT30713 Certificate III in National Broadband Network Construction, a qualification for those seeking to develop more specialised technical skills and knowledge, or a range of other Certificate III qualifications.

Licensing/Regulatory Information

The completion of unit ICTWHS2170B, ICTWHS2170A or ICTOHS2170A and the unit set of ICTCBL2136B and ICTCBL2137B meets the ACMA requirements for Cabling Provider Rules (CPR) open registration.

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

National Code of Practice for Induction for Construction Work

Much of the NBN cabling and installation work falls within the definition of construction work in a cable provisioning construction site. If so, anyone entering the construction site is 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, Plumbing and Services Training Package as part of the core group of this qualification, fulfils this requirement.

Note: ICTOHS2153A Work safely near power infrastructure should be included in the qualification packaging where there is a likelihood of working near power infrastructure. If state or territory law requires a licence to operate an elevated work platform (EWP), TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more) should be completed concurrently with ICTOHS2153A.

Volume of learning

The volume of learning of a Certificate II is typically 0.5 - 1 year.

Entry Requirements

There are no entry requirements for this qualification.

Employability Skills Summary

Employability skill	Industry/enterprise requirements for this qualification include:		
Communication	communicating benefits of high speed broadband to community for successful NBN rollout		
	 notifying any safety aspects to supervisor 		
	conducting and communicating traffic management instructions for improved public safety		
	 documenting test methods and results 		
	• completing cable and equipment labelling and cable records		
	• conveying information to clients, colleagues and other site personnel		
	 completing job reports and compliance forms 		
	 interpreting plan as a set of basic functions to be implemented 		
	• confirming approval for time and method of site access with customers		
	documenting and communicating work-related information, including reporting of faults and problems		
Teamwork	continually fostering effective teamwork for effective NBN rollout		
	identifying members and roles of team between		
	management and workforce, between aerial and		
	underground teams and between installation and testing teams		
	 working with team members to work with clients and provide service 		
	 relating personal role to the industry 		
	 participating in a team structure by identifying team members, tasks and goals and recognising and responding positively to conflict 		
	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	ranking sequences of operations from site preparation to cabling to ensure a methodical and effective approach to		

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	• using strategies to present a professional image to customers
	• interpreting and applying relevant regulations and standards
Learning	 learning from previous experiences in order to improve future practices in NBN rollout learning of methodologies of fibre splicing and adapting to current practices
	 giving and receiving feedback to assist in meeting team and organisation goals making clients aware of opportunities that exist with higher broadband speed offered by NBN and offering training information on upgrades and additional services
	 seeking assistance from team members when necessary providing suitable training and assessment opportunities for work team members on NBN technologies by equipment suppliers
	• providing training to customers on system, product, product features and facilities
	relating current or intended role to career objectives in a positive manner
Technology	familiarising with new fibre technologies for NBN deployment
	ensuring that range of technologies (optical & radio) used in NBN infrastructure rollout are effectively and efficiently deployed to manufacturers specifications
	checking that advanced tools and equipment are in safe working order and adjusted to manufacturer specifications
	 testing and measuring of broadband network infrastructure installing, configuring and operating NBN optical and radio equipment and products
	 identifying, replacing or repairing faulty parts and equipment

Packaging Rules

Total number of units = 12 7 core units *plus* 5 elective units, *of which*:

- 3 units must be from Group A Telecommunications linesworker or Group B Telecommunications broadband network installer
- 2 units must be from Group C General elective units or from elsewhere in this Training Package, another Training Package or accredited course at Certificate II or III level.

Elective units chosen must be relevant to the work and industry context for project practice.

This qualification meets the requirements for the NBN infrastructure rollout and has been developed for specific occupational outcomes. Due to the specialised technical nature of the work, there is provision for choice of specialisation streams but there is no allowance for substitution of elective units in the specialised group. However, the two elective units from Group C can be selected to meet relevant national broadband work outcome and local industry requirements

Core units

CPCCOHS1001A Work safely in the construction industry

ICTCBL2064A Haul underground cable

ICTCBL2065B Splice and terminate optical fibre cable for carriers and service providers ICTCBL2163A Install a cable lead-in

ICTTEN2008A Use electrical skills in telecommunications work

ICTWHS2170B Follow work health and safety and environmental policies and procedures ICTWOR2141A Work effectively in a telecommunications technology team

Elective units

Group A Telecommunications linesworker

ICTCBL2131A Install an above ground equipment enclosure ICTCBL2133A Construct underground telecommunications infrastructure ICTCBL2134A Fix aerial cable

Group B Telecommunications broadband network installer

ICTBWN3090B Install lead-in module and cable for fibre to the premises

ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule

ICTCBL2137B Install, maintain and modify customer premises communications cabling: ACMA Open Rule

ICTCMP2239B Perform restricted customer premises broadband cabling work: ACMA Restricted Rule

Group C General elective units

BSBSUS201A Participate in environmentally sustainable work practices

HLTAID001 Provide cardiopulmonary resuscitation

HLTAID003 Provide first aid

ICTOHS2153B Work safely near power infrastructure

ICTTEN2219A Install and test an internet protocol device in convergence networks

ICTTEN2140B Use hand and power tools

TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)

Prerequisite Units

The following unit in this qualification has the prerequisite unit detailed below.

Code and title	Prerequisite unit required	
ICTCBL2137B Install, maintain and modify customer premises communications cabling: ACMA Open Rule	ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule	
ICTCMP2239A Perform restricted customer premises broadband cabling work: ACMA Restricted Rule	ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule	