**Victorian Purchasing Guide**

**for**

**ICT10 Integrated Telecommunications Training Package Version No 2**

**September 2013**

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Victorian Purchasing Guide ⎯ Version History

|  |  |  |
| --- | --- | --- |
| Training Package Version | Date VPG Approved | Comments |
| ICT10 Integrated Telecommunications Training Package V2 | 12 September 2013 | * 5 new ICT units of competency * Three new qualifications: * ICT20613 Certificate II in National Broadband Network Construction * ICT30713 Certificate III in National Broadband Network Construction * ICT30813 Certificate III in Telecommunications Fixed Wireless Installation * Two revised qualifications: * ICT20513 Certificate II in Telecommunications Fixed Wireless and Rigging Installation * ICT30513 Certificate III in Telecommunications Rigging Installation |
| ICT10 Integrated Telecommunications Training Package 1 | 25/08/2010 | This Victorian Purchasing Guide reflects the changes made to ICT10 Integrated Telecommunications Training Package 1  Initial release following a full review of the ICT02 Telecommunications Training Package |

**ICT10 Integrated Telecommunications** **Training Package Victorian Purchasing Guide**

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INTRODUCTION

What is a Victorian Purchasing Guide?

The Victorian Purchasing Guide provides information for use by Registered Training Organisations (RTOs) in the provision of Victorian government subsidised training.

Specifically the Victorian Purchasing Guide provides the following information related to the delivery of nationally endorsed Training Packages in Victoria:

* The nominal hour range (minimum-maximum) available for each qualification.
* Nominal hours for each unit of competency within the Training Package.
* Sample Training Programs

Registration

RTOs must be registered by either the Victorian Registration and Qualifications Authority (VRQA) or the Australian Skills Qualification Authority (ASQA) regulatory body to be eligible to issue qualifications and statements of attainment under the Australian Quality Framework (AQF).

The VRQA is the regulatory authority for Victoria that registers VET training organisations who provide courses to domestic students only and who only offer training in Victoria.

To register to provide training to international students and in other Australian states and territories you will need to apply with ASQA.

QUALIFICATIONS

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Title | Qualification Nominal Hour Range | |
|  |  | Minimum | Maximum |
| ICT20110 | Certificate II in Telecommunications Technology | 370 | 425 |
| ICT20210 | Certificate II in Telecommunications | 306 | 550 |
| ICT20310 | Certificate II in Telecommunications Cabling | 326 | 525 |
| ICT20410 | Certificate II in Telecommunications Digital Reception Technology | 356 | 465 |
| ICT20513 | Certificate II in Telecommunications Fixed Wireless and Rigging Installation | 401 | 701 |
| ICT20613 | Certificate II in National Broadband Network Construction | 411 | 516 |
| ICT30110 | Certificate III in Broadband and Wireless Networks Technology | 486 | 765 |
| ICT30210 | Certificate III in Telecommunications | 366 | 620 |
| ICT30310 | Certificate III in Telecommunications Cabling | 366 | 625 |
| ICT30410 | Certificate III in Telecommunications Digital Reception Technology | 226 | 450 |
| ICT30513 | Certificate III in Telecommunications Rigging Installation | 526 | 656 |
| ICT30610 | Certificate III in Broadband and Wireless Networks | 356 | 605 |
| ICT30713 | Certificate III in National Broadband Network Construction | 546 | 676 |
| ICT30813 | Certificate III in Telecommunications Fixed Wireless Installation | 400 | 615 |
| ICT40110 | Certificate IV in Optical Networks | 426 | 750 |
| ICT40210 | Certificate IV in Telecommunications Network Engineering | 326 | 780 |
| ICT40310 | Certificate IV in Telecommunications Radio Communications | 544 | 870 |
| ICT40410 | Certificate IV in Radio Frequency Networks | 376 | 790 |
| ICT40510 | Certificate IV in Telecommunications Network Planning | 530 | 580 |
| ICT40610 | Certificate IV in Telecommunications Networks Technology | 591 | 1050 |
| ICT50110 | Diploma of Optical Networks | 455 | 640 |
| ICT50210 | Diploma of Telecommunications Network Engineering | 455 | 680 |
| ICT50310 | Diploma of Telecommunications Management | 480 | 610 |
| ICT50410 | Diploma of Radio Frequency Networks | 505 | 690 |
| ICT50510 | Diploma of Telecommunications Planning and Design | 560 | 610 |
| ICT60110 | Advanced Diploma of Optical Networks | 430 | 685 |
| ICT60210 | Advanced Diploma of Telecommunications Network Engineering | 370 | 705 |
| ICT70110 | Vocational Graduate Certificate in Telecommunications Network Engineering | 290 | 330 |
| ICT80110 | Vocational Graduate Diploma of Telecommunications Network Engineering | 340 | 380 |

UNITS OF COMPETENCY AND NOMINAL HOURS

RTOs are advised that there is a mapping inside the Training Package that describes the relationship between new units and superseded or replaced units from the previous version of ICT10 Integrated Telecommunications Training Package**.**  Information regarding transition arrangements can be obtained from the state or national VET Regulating Authority (see Contacts and Links section).

You must be sure that all training and assessment leading to qualifications or Statements of Attainment from the Training Package is conducted against the Training Package units of competency and complies with the requirements in the assessment guidelines.

Listing of the Units of Competency and Nominal Hours

| Unit Code | Unit Title | Nominal Hours |
| --- | --- | --- |
| ICTBWN3082A | Perform tests on optical communication system and components | 40 |
| ICTBWN3088A | Install optical fibre splitters in fibre distribution hubs | 40 |
| ICTBWN3090A | Install lead-in module and cable for fibre to the premises | 50 |
| ICTBWN3100A | Work safely with live fibre to test and commission a fibre to the x installation | 50 |
| ICTBWN3205A | Use optical and radio frequency measuring instruments | 40 |
| ICTCBL2005A | Install customer cable support systems | 50 |
| ICTCBL2006A | Place and secure customer cable | 45 |
| ICTCBL2008A | Terminate metallic conductor customer cable | 30 |
| ICTCBL2012A | Install functional and protective telecommunications earthing system | 30 |
| ICTCBL2016A | Joint metallic conductor cable on customer premises | 40 |
| ICTCBL2017A | Alter services to existing cable system | 50 |
| ICTCBL2064A | Haul underground cable | 40 |
| ICTCBL2065A | Splice and terminate optical fibre cable for carriers and service providers | 40 |
| ICTCBL2066A | Joint and terminate coaxial cable | 30 |
| ICTCBL2068A | Install a telecommunications service to a building | 50 |
| ICTCBL2131A | Install an above ground equipment enclosure | 45 |
| ICTCBL2132A | Erect aerial cable supports | 40 |
| ICTCBL2133A | Construct underground telecommunications infrastructure | 50 |
| ICTCBL2134A | Fix aerial cable | 50 |
| ICTCBL2135A | Joint metallic conductor cable in access network | 50 |
| ICTCBL2136A | Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule | 60 |
| ICTCBL2137A | Install, maintain and modify customer premises communications cabling: ACMA Open Rule | 100 |
| ICTCBL2138A | Install, maintain and modify customer premises communications cabling: ACMA Lift Rule | 40 |
| ICTCBL2139A | Apply safe technical work practices for cabling registration | 40 |
| ICTCBL2162A | Install a cable lead-in | 30 |
| ICTCBL3009A | Install, terminate and certify structured cabling installation | 50 |
| ICTCBL3010A | Install and terminate optical fibre cable on customer premises | 30 |
| ICTCBL3011A | Install and terminate coaxial cable | 20 |
| ICTCBL3013A | Perform cable and system test on customer premises | 40 |
| ICTCBL3014A | Hand over systems and equipment | 40 |
| ICTCBL3015A | Locate and identify cable system faults | 40 |
| ICTCBL3018A | Install underground enclosures and conduit | 60 |
| ICTCBL3019A | Install underground cable | 60 |
| ICTCBL3020A | Construct aerial cable supports | 60 |
| ICTCBL3021A | Install aerial cable | 40 |
| ICTCBL3049A | Install systems and equipment on customer premises | 60 |
| ICTCBL3052A | Cut over new systems and equipment on customer premises | 40 |
| ICTCBL3067A | Modify and cut over cable | 45 |
| ICTCBL3069A | Install network cable equipment | 50 |
| ICTCBL3103A | Maintain cable network | 40 |
| ICTCBL3240A | Install ribbon fibre cable in the FTTX distribution network | 60 |
| ICTCBL4002A | Prepare design drawings and specification for a cable installation | 50 |
| ICTCBL4004A | Schedule and supply cabling installation | 35 |
| ICTCBL4023A | Supervise cabling project | 40 |
| ICTCBL4057A | Test cable bearers | 40 |
| ICTCBL4099A | Remotely locate and identify cable network faults | 60 |
| ICTCMP2022A | Organise and monitor cabling to ensure compliance with regulatory and industry standards | 40 |
| ICTCMP2239A | Perform restricted customer premises broadband cabling work: ACMA Restricted Rule | 20 |
| ICTCMP5176A | Undertake radio communications site audit | 45 |
| ICTDRE3156A | Install digital reception equipment | 30 |
| ICTDRE3157A | Locate and rectify digital reception equipment faults | 40 |
| ICTDRE3165A | Install a complex digital reception system | 30 |
| ICTDRE4166A | Integrate customer digital reception equipment | 30 |
| ICTDRE4167A | Integrate data delivery modes | 40 |
| ICTEDU3053A | Train customers in new technology | 40 |
| ICTEDU5025A | Develop and deliver training associated with new and modified products | 60 |
| ICTITU5144A | Test telecommunications network using virtual instruments | 60 |
| ICTITU7106A | Manage automated ICT system applications using unix | 50 |
| ICTNPL4107A | Apply business acumen to network planning | 50 |
| ICTNPL4108A | Plan the deployment of access network architectures | 50 |
| ICTNPL4109A | Evaluate the capability of access networks | 50 |
| ICTNPL4110A | Evaluate the planning requirements for provisioning a telecommunications building facility | 50 |
| ICTNPL4111A | Develop provisioning of telecommunications building works project | 50 |
| ICTNPL4112A | Evaluate core network architectures | 50 |
| ICTNPL4113A | Plan the deployment of core network | 50 |
| ICTNPL4114A | Produce planning specifications for end to end service delivery | 50 |
| ICTNPL4150A | Apply knowledge of regulation and legislation for the telecommunications industry | 60 |
| ICTNPL4151A | Plan the telecommunications access network for an estate | 60 |
| ICTNPL5071A | Develop planning strategies for core network design | 50 |
| ICTNPL5096A | Develop planning strategies for access network design | 60 |
| ICTNPL5101A | Apply service measures and demand forecasting to products and services planning | 50 |
| ICTNPL5154A | Develop planning strategies for building environment design | 50 |
| ICTNPL6029A | Plan the development and growth of the telecommunications network | 70 |
| ICTNPL6030A | Forecast service demand | 60 |
| ICTNPL6046A | Undertake network performance analysis | 90 |
| ICTOHS2080A | Provide telecommunications services safely on roofs | 50 |
| ICTOHS2153A | Work safely near power infrastructure | 30 |
| ICTOHS2170A | Follow Occupational Health and Safety and environmental policy and procedures | 40 |
| ICTOPN4115A | Install and test a dense wavelength division multiplexing system | 60 |
| ICTOPN4116A | Use advanced optical test equipment | 50 |
| ICTOPN4117A | Prepare activity plans and specifications for a fibre to the x installation | 60 |
| ICTOPN5118A | Plan and configure dense wavelength division multiplexing systems | 60 |
| ICTOPN5119A | Perform acceptance and commissioning tests on optical network | 50 |
| ICTOPN5120A | Plan for an optical system upgrade and cut over | 60 |
| ICTOPN5121A | Test and commission a dense wavelength division multiplexing transmission system | 50 |
| ICTOPN5122A | Test the performance of specialised optical devices | 45 |
| ICTOPN5123A | Analyse and integrate specialised optical devices in the network | 60 |
| ICTOPN6124A | Manage optical ethernet transmission | 60 |
| ICTOPN6125A | Manage dense wavelength division multiplexing transmission system | 60 |
| ICTOPN6128A | Design a dense wavelength division multiplexing system | 50 |
| ICTOPN6129A | Analyse optical transmission systems | 50 |
| ICTPMG2130A | Prepare site for support installation | 45 |
| ICTPMG2173A | Plan, organise and undertake work activities | 20 |
| ICTPMG4048A | Schedule installation of customer premises equipment | 20 |
| ICTPMG4152A | Manage the delivery of network infrastructure | 60 |
| ICTPMG5027A | Develop customer premises equipment installation project plans | 60 |
| ICTPMG5031A | Prepare a project brief | 60 |
| ICTPMG5039A | Prepare project specifications | 60 |
| ICTPMG6033A | Develop a project management plan | 70 |
| ICTPMG6034A | Prepare a detailed design brief | 40 |
| ICTPMG7145A | Undertake a telecommunications project | 50 |
| ICTPMG8142A | Manage a telecommunications workplace | 50 |
| ICTPMG8143A | Manage a telecommunications project | 50 |
| ICTPMG8149A | Evaluate and use telecommunications management networks | 80 |
| ICTPRO5026A | Develop training, marketing and sales resources for telecommunications products | 60 |
| ICTRFN2163A | Install a satellite antenna | 30 |
| ICTRFN2164A | Install a terrestrial antenna | 30 |
| ICTRFN3055A | Install a radio communications antenna and feedline | 40 |
| ICTRFN3070A | Install mobile telecommunications in motor vehicles | 60 |
| ICTRFN3146A | Install WiMAX customer premises equipment broadband wireless access equipment | 40 |
| ICTRFN3155A | Construct and test a radio communications device | 60 |
| ICTRFN3175A | Operate and maintain radio communications technical instruments and field equipment | 45 |
| ICTRFN4095A | Conduct radio frequency measurements | 40 |
| ICTRFN4158A | Select an antenna system for radio communications | 30 |
| ICTRFN4159A | Test and repair cellular network equipment | 60 |
| ICTRFN4174A | Undertake radio communications signals monitoring | 45 |
| ICTRFN4177A | Install radio communications base station equipment | 50 |
| ICTRFN4178A | Maintain hybrid fibre coaxial broadband cable network | 50 |
| ICTRFN5097A | Test cellular handset enhancements and international roaming agreements | 50 |
| ICTRFN5148A | Test and measure cellular phone and network equipment performance | 50 |
| ICTRFN5179A | Evaluate and analyse radio frequency signal coverage plots | 45 |
| ICTRFN6098A | Monitor the capacity of and recommend changes to the cellular mobile network | 60 |
| ICTRFN6171A | Produce and evaluate architecture designs for WiMAX networks | 80 |
| ICTRFN7182A | Produce a radio link budget | 50 |
| ICTRFN8180A | Analyse a cellular mobile network system | 70 |
| ICTRFN8181A | Analyse a satellite communications system | 60 |
| ICTSMB4160A | Set up and operate a contractor business | 40 |
| ICTSMB4161A | Operate a contractor business with employees | 20 |
| ICTSUS4183A | Install and test renewable energy system for ICT networks | 60 |
| ICTSUS4184A | Install and test power saving hardware | 60 |
| ICTSUS4185A | Install and test power management software | 50 |
| ICTSUS4186A | Install thin client applications for power over ethernet | 60 |
| ICTSUS5187A | Implement server virtualisation for a sustainable ICT system | 80 |
| ICTSUS6233A | Integrate sustainability in ICT planning and design projects | 55 |
| ICTSUS6234A | Establish a business case for sustainability and competitive advantage in ICT projects | 55 |
| ICTSUS7235A | Use ICT to improve sustainability outcomes | 50 |
| ICTSUS7236A | Manage improvements in ICT sustainability | 55 |
| ICTSUS8237A | Lead applied research in ICT sustainability | 60 |
| ICTSUS8238A | Conduct and manage a life cycle assessment for sustainability | 60 |
| ICTTCR2188A | Use rigging practices and systems on telecommunications network structures | 45 |
| ICTTCR2189A | Use operational safety in a telecommunications rigging environment | 45 |
| ICTTCR2190A | Use safe rigging practices to climb and perform rescues on telecommunications network structures | 45 |
| ICTTCR3062A | Build a telecommunications radio structure | 60 |
| ICTTCR3191A | Install radio plant and equipment on telecommunications structures | 60 |
| ICTTCR3192A | Protect against electromagnetic radiation and system hazards when working on telecommunications radio sites | 40 |
| ICTTEN2007A | Use electrical skills in telecommunications work | 40 |
| ICTTEN2105A | Install and test an internet protocol device in convergence networks | 50 |
| ICTTEN2140A | Use hand and power tools | 40 |
| ICTTEN2207A | Install and configure a home or small office network | 60 |
| ICTTEN2208A | Install and configure a small to medium business network | 60 |
| ICTTEN2209A | Build and maintain a secure network | 80 |
| ICTTEN2218A | Operate new media software packages | 40 |
| ICTTEN3054A | Provide infrastructure for telecommunications network equipment | 60 |
| ICTTEN3056A | Install telecommunications network equipment | 60 |
| ICTTEN3063A | Locate, identify and rectify recurrent network faults | 50 |
| ICTTEN3074A | Recover customer premises equipment | 30 |
| ICTTEN3075A | Refurbish customer premises equipment | 30 |
| ICTTEN3077A | Commission an electronic unit | 50 |
| ICTTEN3089A | Repair and replace telecommunications network hardware | 60 |
| ICTTEN3104A | Maintain an electronic system | 40 |
| ICTTEN3250A | Provide infrastructure for telecommunications customer equipment | 60 |
| ICTTEN4001A | Identify requirements for customer telecommunications equipment | 40 |
| ICTTEN4003A | Estimate and quote for customer telecommunications equipment installation | 30 |
| ICTTEN4040A | Assign a transmission path | 40 |
| ICTTEN4050A | Install and configure a wireless mesh network | 60 |
| ICTTEN4051A | Install configuration programs on PC based customer equipment | 50 |
| ICTTEN4072A | Effect changes to existing customer premises equipment systems and equipment | 50 |
| ICTTEN4073A | Cut over customer premises equipment major upgrades | 40 |
| ICTTEN4076A | Complete equipment and software upgrades | 40 |
| ICTTEN4078A | Commission an electronic system | 50 |
| ICTTEN4081A | Locate, diagnose and rectify faults | 50 |
| ICTTEN4085A | Monitor, analyse and action telecommunications network alarms | 60 |
| ICTTEN4086A | Undertake routine maintenance of the telecommunications network | 60 |
| ICTTEN4087A | Undertake remote diagnosis and repair of network faults | 50 |
| ICTTEN4102A | Repair telecommunication system faults | 40 |
| ICTTEN4126A | Install and configure internet protocol TV in a home network | 50 |
| ICTTEN4198A | Install, configure and test an internet protocol network | 50 |
| ICTTEN4199A | Install, configure and test a router | 60 |
| ICTTEN4202A | Install and test a radio frequency identification system | 50 |
| ICTTEN4210A | Implement and troubleshoot enterprise routers and switches | 100 |
| ICTTEN4211A | Design, install and configure an internetwork | 100 |
| ICTTEN4212A | Apply advanced routing protocols to network design | 80 |
| ICTTEN4213A | Configure and troubleshoot advanced network switching | 80 |
| ICTTEN4214A | Install and maintain a wide area network | 80 |
| ICTTEN4215A | Install and configure internet protocol TV in a service provider network | 60 |
| ICTTEN4229A | Design, install and configure a customer smart grid network | 50 |
| ICTTEN5024A | Provide consultancy and technical support in the customer premises equipment sector | 60 |
| ICTTEN5037A | Design a telecommunications project | 70 |
| ICTTEN5038A | Design an electronic system for a telecommunications network | 80 |
| ICTTEN5058A | Acceptance test new systems and equipment | 70 |
| ICTTEN5059A | Commission telecommunications network equipment | 70 |
| ICTTEN5060A | Integrate new systems and equipment into the telecommunications network | 80 |
| ICTTEN5061A | Cut over new and replacement network equipment | 60 |
| ICTTEN5083A | Locate, diagnose and rectify complex faults | 60 |
| ICTTEN5084A | Provide expert advice and support on complex faults | 50 |
| ICTTEN5092A | Undertake planned outage management | 40 |
| ICTTEN5147A | Administer a data communications network | 60 |
| ICTTEN5168A | Design and implement an enterprise voice over internet protocol and a unified communications network | 60 |
| ICTTEN5200A | Install, configure and test a local area network switch | 60 |
| ICTTEN5201A | Install, configure and test a server | 60 |
| ICTTEN5203A | Dimension and design a radio frequency identification system | 60 |
| ICTTEN5204A | Produce technical solutions from business specifications | 50 |
| ICTTEN5217A | Plan a wireless mesh network | 60 |
| ICTTEN6036A | Undertake qualification testing of new or enhanced equipment and systems | 75 |
| ICTTEN6042A | Undertake system administration | 75 |
| ICTTEN6043A | Undertake network traffic management | 90 |
| ICTTEN6044A | Coordinate fault rectification and restoration of service following network outages | 60 |
| ICTTEN6045A | Implement planned network changes with minimal impact to the customer | 60 |
| ICTTEN6047A | Manage a common channel signalling network | 60 |
| ICTTEN6091A | Analyse and organise repair of highly complex telecommunications network faults | 60 |
| ICTTEN6094A | Verify new software and hardware releases | 50 |
| ICTTEN6169A | Produce and evaluate architecture designs for convergent cellular mobile networks | 80 |
| ICTTEN6172A | Design and configure an IP-MPLS network with virtual private network tunnelling | 80 |
| ICTTEN6206A | Produce an ICT network architecture design | 60 |
| ICTTEN6216A | Design and manage internet protocol TV in a service provider network | 60 |
| ICTTEN7193A | Plan a transmission network | 60 |
| ICTTEN7219A | Manage alignment of systems with product and technology strategy | 40 |
| ICTTEN7220A | Translate domain and solution architectures into platform requirements and designs | 60 |
| ICTTEN7221A | Manage end to end architectural solutions across multiple domains | 60 |
| ICTTEN7222A | Manage solution architecture and impacts in line with organisational processes | 60 |
| ICTTEN7223A | Manage application layer solutions | 60 |
| ICTTEN7224A | Manage voice, data and internet protocol network solutions | 60 |
| ICTTEN7225A | Manage network testing strategies | 60 |
| ICTTEN7226A | Manage development and application of testing artefacts | 60 |
| ICTTEN7227A | Analyse business specifications to produce technical solutions | 60 |
| ICTTEN7228A | Manage project requirements and process implementations | 60 |
| ICTTEN7230A | Scope project requirements and process solutions | 60 |
| ICTTEN8194A | Investigate the application of cloud networks in telecommunications switching | 60 |
| ICTTEN8195A | Evaluate and apply network security | 60 |
| ICTTEN8196A | Evaluate and apply digital signal processing to communications system | 60 |
| ICTTEN8197A | Produce engineering solutions using numerical computations and simulation | 60 |
| ICTWHS2081A | Work safely in a radio frequency electromagnetic radiation environment | 40 |
| ICTWHS2170A | Follow work health and safety and environmental policies and procedures | 40 |
| ICTWOR2141A | Work effectively in a telecommunications technology team | 20 |
| ICTWOR3028A | Organise resources | 20 |
| ICTWOR3035A | Organise material supply | 20 |
| ICTWOR3041A | Schedule resources | 30 |
| ICTWOR3093A | Manage spare parts | 20 |
| ICTWOR3127A | Supervise worksite activities | 30 |
| ICTWOR3231A | Resolve technical enquiries using multiple information systems | 40 |
| ICTWOR3232A | Collect and analyse technical information | 30 |
| ICTWOR4032A | Undertake a civil site survey | 20 |
| ICTWOR4079A | Schedule equipment maintenance | 40 |

SAMPLE TRAINING PROGRAMS

A range of Sample Training Plans have been provided to demonstrate the flexibility of qualifications contained in the **ICT10 Integrated Telecommunications Training Package**, but are by no means mandatory.

|  |  |  |
| --- | --- | --- |
| **Occupation/ Workfunction** | Telecommunications Cabling Worker (new entrant) | |
| **Qualification Title** | Certificate II in Telecommunications Cabling | |
| **Qualification Code** | ICT20310 | |
| **Description** | Appropriate for a person installing telecommunications and data cabling and cabling products on customer premises under the auspices of the industry registration scheme. | |
| **Notes** | For advice on how to choose electives others than those listed below, please refer to the **Integrated Telecommunications Training Package (ICT10)** and its Qualifications Packaging Rules or contact the CMM Engineering Industries on (03)9286 9880. | |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |  |  |
| BSBSUS201A | Participate in environmentally sustainable work practices | 20 |
| ICTOHS2170A | Follow Occupational Health and Safety and environmental policy and procedures | 40 |
| ICTTEN2007A | Use electrical skills in telecommunications work | 40 |
| ICTTEN2105A | Install and test an internet protocol device in convergence networks | 50 |
| ICTTEN2140A | Use hand and power tools | 40 |
| **Electives** |  |  |
| ICTSMB4160A | Set up and operate a contractor business | 40 |
| ICTCBL2005A | Install customer cable support systems | 50 |
| ICTCBL2006A | Place and secure customer cable | 45 |
| ICTCBL2068A | Install a telecommunications service to a building | 50 |
| ICTCBL2136A | Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule | 60 |
| ICTCBL2017A | Alter services to existing cable system | 50 |
| ICTCMP2022A | Organise and monitor cabling to ensure compliance with regulatory and industry standards | 40 |
|  | **Total Hours** | **525** |

|  |  |  |
| --- | --- | --- |
| **Occupation/ Workfunction** | Telecommunications Tradesperson | |
| **Qualification Title** | Certificate III in Telecommunications | |
| **Qualification Code** | ICT30210 | |
| **Description** | Appropriate for a person providing technical support for telecommunications equipment and products at either enterprise or customer premises. This role includes providing advice to clients, handling data on technical information and performing basic network administration. | |
| **Notes** | For advice on how to choose electives others than those listed below, please refer to the **Integrated Telecommunications Training Package (ICT10)** and its Qualifications Packaging Rules or contact the CMM Engineering Industries on (03)9286 9880. | |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |  |  |
| BSBSUS301A | Implement and monitor environmentally sustainable work practices | 40 |
| ICTBWN3205A | Use optical and radio frequency measuring instruments | 40 |
| ICTOHS2170A | Follow Occupational Health and Safety and environmental policy and procedures | 40 |
| ICTTEN2007A | Use electrical skills in telecommunications work | 40 |
| ICTTEN2140A | Use hand and power tools | 40 |
| ICTTEN3056A | Install telecommunications network equipment | 60 |
| **Electives** |  |  |
| ICTWOR3231A | Resolve technical enquiries using multiple information systems | 40 |
| ICTBWN3100A | Work safely with live fibre to test and commission a fibre to the x installation | 50 |
| ICTCBL2136A | Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule | 60 |
| ICTCBL2137A | Install, maintain and modify customer premises communications cabling: ACMA Open Rule | 100 |
| ICTCBL3049A | Install systems and equipment on customer premises | 60 |
| ICTTEN4198A | Install, configure and test an internet protocol network | 50 |
|  | **Total Hours** | **620** |

|  |  |  |
| --- | --- | --- |
| **Occupation/ Workfunction** | Telecommunications Technician | |
| **Qualification Title** | Certificate IV in Telecommunications Networks Technology | |
| **Qualification Code** | ICT40610 | |
| **Description** | Appropriate for a person with a broad range of skills in installing, testing and fault finding telecommunications and computer network equipment. | |
| **Notes** | For advice on how to choose electives others than those listed below, please refer to the **Integrated Telecommunications Training Package (ICT10)** and its Qualifications Packaging Rules or contact the CMM Engineering Industries on (03)9286 9880. | |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |  |  |
| ICTBWN3205A | Use optical and radio frequency measuring instruments | 40 |
| ICTOHS2170A | Follow Occupational Health and Safety and environmental policy and procedures | 40 |
| ICTPMG4152A | Manage the delivery of network infrastructure | 60 |
| ICTSUS4185A | Install and test power management software | 50 |
| ICTTEN2007A | Use electrical skills in telecommunications work | 40 |
| ICTTEN2105A | Install and test an internet protocol device in convergence networks | 50 |
| ICTTEN2140A | Use hand and power tools | 40 |
| ICTTEN4081A | Locate, diagnose and rectify faults | 50 |
| **Electives** |  |  |
| BSBSMB405B | Monitor and manage small business operations | 45 |
| ICANWK406A | Install, configure and test network security | 50 |
| ICANWK417A | Build an enterprise wireless network | 80 |
| ICTTEN4198A | Install, configure and test an internet protocol network | 50 |
| ICTTEN4210A | Implement and troubleshoot enterprise routers and switches | 100 |
| ICTTEN4211A | Design, install and configure an internetwork | 100 |
| ICTTEN4212A | Apply advanced routing protocols to network design | 80 |
| ICTTEN4213A | Configure and troubleshoot advanced network switching | 80 |
| ICTTEN4214A | Install and maintain a wide area network | 80 |
|  | **Total Hours** | **1035** |

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| **Occupation/ Workfunction** | Computer and Network Officer | |
| **Qualification Title** | Diploma of Radio Frequency Networks | |
| **Qualification Code** | ICT50410 | |
| **Description** | Appropriate for a person involved with the installation and management of computer and data communications equipment, including planning, testing and fault finding. It involves a high degree of autonomy and may include some supervision of others. | |
| **Notes** | For advice on how to choose electives others than those listed below, please refer to the **Integrated Telecommunications Training Package (ICT10)** and its Qualifications Packaging Rules or contact the CMM Engineering Industries on (03)9286 9880. | |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |  |  |
| BSBPMG510A | Manage projects | 60 |
| BSBSUS501A | Develop workplace policy and procedures for sustainability | 50 |
| ICTPMG5031A | Prepare a project brief | 60 |
| ICTTEN5037A | Design a telecommunications project | 70 |
| ICTTEN5217A | Plan a wireless mesh network | 60 |
| ICTRFN6171A | Produce and evaluate architecture designs for WiMAX networks | 80 |
| **Electives** |  |  |
| ICTTEN5058A | Acceptance test new systems and equipment | 70 |
| ICTTEN5059A | Commission telecommunications network equipment | 70 |
| ICTTEN5060A | Integrate new systems and equipment into the telecommunications network | 80 |
| ICTSUS5187A | Implement server virtualisation for a sustainable ICT system | 80 |
|  | **Total Hours** | **680** |

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| **Occupation/ Workfunction** | Telecommunications Network Manager | | |
| **Qualification Title** | Advanced Diploma of Telecommunications Network Engineering | | |
| **Qualification Code** | ICT60210 | | |
| **Description** | Appropriate for a person involved with the design, installation and management of computer and data communications equipment, including planning, testing and fault finding. It involves a high degree of autonomy and may include some supervision of others. | | |
| **Notes** | For advice on how to choose electives others than those listed below, please refer to the **Integrated Telecommunications Training Package (ICT10)** and its Qualifications Packaging Rules or contact the CMM Engineering Industries on (03)9286 9880. | | |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |  |  | |
| ICTPMG6033A | Develop a project management plan | 70 | |
| ICTPMG6034A | Prepare a detailed design brief | 40 | |
| ICTSUS6233A | Integrate sustainability in ICT planning and design projects | 55 | |
| ICTTEN6206A | Produce an ICT network architecture design | 60 | |
| **Electives** |  |  | |
| ICTNPL6029A | Plan the development and growth of the telecommunications network | 70 | |
| ICTNPL6030A | Forecast service demand | 60 | |
| ICTNPL6046A | Undertake network performance analysis | 90 | |
| ICTTEN6036A | Undertake qualification testing of new or enhanced equipment and systems | 75 | |
| ICTTEN6042A | Undertake system administration | 75 | |
| ICTTEN6043A | Undertake network traffic management | 90 | |
|  | **Total Hours** | **685** | |

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| **Occupation/ Workfunction** | Telecommunications Network Technology Specialist | |
| **Qualification Title** | Vocational Graduate Certificate in Telecommunications Network Engineering | |
| **Qualification Code** | ICT70110 | |
| **Description** | Appropriate for a person involved with the design, installation and management of telecommunications networks, including planning, testing and fault finding. It involves a high degree of autonomy and may include some supervision of others. | |
| **Notes** | For advice on how to choose electives others than those listed below, please refer to the **Integrated Telecommunications Training Package (ICT10)** and its Qualifications Packaging Rules or contact the CMM Engineering Industries on (03)9286 9880. | |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |  |  |
| ICTPMG7145A | Undertake a telecommunications project | 50 |
| ICTPMG8142A | Manage a telecommunications workplace | 50 |
| ICTSUS7235A | Use ICT to improve sustainability outcomes | 50 |
| **Electives** |  |  |
| ICTTEN7193A | Plan a transmission network | 60 |
| ICTTEN7224A | Manage voice, data and internet protocol network solutions | 60 |
| ICTTEN7227A | Analyse business specifications to produce technical solutions | 60 |
|  | **Total Hours** | **330** |

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| **Occupation/ Workfunction** | Telecommunications Network Technology Specialist | |
| **Qualification Title** | Vocational Graduate Diploma of Telecommunications Network Engineering | |
| **Qualification Code** | ICT80110 | |
| **Description** | Appropriate for a person involved with the design, installation and management of telecommunications networks, including planning, testing and fault finding. It involves a high degree of autonomy and may include some supervision of others. | |
| **Notes** | For advice on how to choose electives others than those listed below, please refer to the **Integrated Telecommunications Training Package (ICT10)** and its Qualifications Packaging Rules or contact the CMM Engineering Industries on (03)9286 9880. | |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |  |  |
| ICTPMG8143A | Manage a telecommunications project | 50 |
| ICTTEN8197A | Produce engineering solutions using numerical computations and simulation | 60 |
| ICTSUS8237A | Lead applied research in ICT sustainability | 60 |
| **Electives** |  |  |
| ICTPMG8149A | Evaluate and use telecommunications management networks | 80 |
| ICTRFN8180A | Analyse a cellular mobile network system | 70 |
| ICTRFN8181A | Analyse a satellite communications system | 60 |
|  | **Total Hours** | **380** |

CONTACTS AND LINKS

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| **Industry Skills Council (ISC)** | | |
| EE-Oz Training Standards | This ISC is responsible for developing this **ICT10 Integrated Telecommunications Training Package** and can be contacted for further information. You can also source copies of the Training Package and support material. | Ground Floor 68 Campbell Street, Surry Hills, NSW, 2010  Phone: (02) 9280 2566  Fax: (02) 9280 1600  Email: [ee-oz@ee-oz.com.au](mailto:ee-oz@ee-oz.com.au)  Web: <http://www.eeqsba.com.au> |
| **National Register for VET in Australia** | | |
| Training.gov.au (TGA) | TGA is the Australian governments’ official National Register of information on Training Packages, qualifications, courses, units of competency and RTOs. | training.gov.au |
| **Australian Government** | | |
| The Department of Industry, Innovation, Science, Research and Tertiary Education  (DIISRTE) | DIISRTE provides a range of services and resources to assist in delivery of Training Packages. Search the DIISRTE website for links to a range of relevant resources and publications. | <http://www.innovation.gov.au>  You may also find Department of Education and Workplace Relations website of use.  <http://www.deewr.gov.au> |
| **State Government** | | |
| Department of Education and Early Childhood Development  Higher Education and Skills Group | Higher Education and Skills Group is responsible for funding and the implementation of Vocational Education and Training (VET) in Victoria, including Apprenticeships and Traineeships. | General information:  [www.skills.vic.gov.au](http://www.skills.vic.gov.au/)  Approved Training Schemes:  <http://www.skills.vic.gov.au/corporate/publications/brochures-and-fact-sheets/apprenticeships-and-traineeships-in-victoria-industry-guides> |
| **Curriculum Maintenance Manager (CMM)** | | |
| Engineering Industries | The CMM service is provided by Executive Officers located within Victorian TAFE institutes on behalf of Higher Education and Skills Group. | George Adda  Box Hill Institute of TAFE,  Private Bag 2014, Box Hill,  Victoria, 3128  Phone: (03) 9286 9880  Fax: (03) 9286 9800  Email: [g.adda@bhtafe.edu.au](mailto:g.adda@bhtafe.edu.au)  Web:  <http://trainingsupport.skills.vic.gov.au/cmminf.cfm> |
| **State VET Regulatory Authority** | | |
| Victorian Registration and Qualifications Authority (VRQA) | The VRQA is a statutory authority responsible for the registration of education and training providers in Victoria to ensure the delivery of quality education and training. | [www.vrqa.vic.gov.au](http://www.vrqa.vic.gov.au/)  Phone: 03 9637 2806 |
| **National VET Regulatory Authority** | | |
| Australian Skills Quality Authority (ASQA) | ASQA is the national regulator for Australia’s VET sector vocational education and training sector.  ASQA regulates courses and training providers to ensure nationally approved quality standards are met. | [www.asqa.gov.au](http://www.asqa.gov.au)  Info line: 1300 701 801 |
| **Industry Regulatory Body** | | |
| Australian Communications Authority (ACA) | The industry Regulatory body can provide advice on licensing, legislative or regulatory requirements which may impact on the delivery of training or the issuance of qualifications in this Training Package. | Southern Australia Regional Office 15th Floor 200 Queen Street Melbourne, 8010  Phone: (03) 9963 6988  Fax: (03) 9963 6989  Email: [saro@aca.gov.au](mailto:saro@aca.gov.au) Web site: <http://www.aca.gov.au> |
| **WorkSafe** | | |
| WorkSafe Victoria | WorkSafe needs to provide written verification before High Risk Work Units can be added to an RTO’s scope of registration. | [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au/)  Info line: 1800 136 089 |

GLOSSARY

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| **Code** | Nationally endorsed Training Package qualification code. |
| **Title** | Nationally endorsed Training Package qualification title. |
| **Unit Code** | Nationally endorsed Training Package unit code. |
| **Unit Title** | Nationally endorsed Training Package unit title. |
| **Nominal Hours** | The anticipated hours of supervised learning or training deemed necessary to conduct training and assessment activities associated with the program of study. These hours are determined by the Victorian State Training Authority. Nominal hours may vary for a qualification depending on the units of competency selected. |
| **Scope of Registration** | Scope of registration specifies the AQF qualifications and/or units of competency the training organisation is registered to issue and the industry training and/or assessment services it is registered to provide. |