**Victorian Purchasing Guide**

**for**

**ICA11 Information and Communications Technology
Training Package Version No 2**

**November 2013**



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Victorian Purchasing Guide ⎯ Version History

|  |  |  |
| --- | --- | --- |
| Training Package Version  | Date VPGApproved | Comments |
| ICA11 Information and Communications Technology Training Package V2 | 15 November 2013 | This Victorian Purchasing Guide includes:* 5 revised units
* 10 new units in Cloud Computing
* ISC upgrades to replace BSBOHS units with BSBWHS units in Sample Training Programs where appropriate.
 |
| ICA11 Information and Communications Technology Training Package V1 | 27 September 2011 | This Victorian Purchasing Guide reflects the changes made to ICA05 Information and Communications Technology Training Package Version 3, now superseded. |

**ICA11 Information and Communications Technology** **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 |
| ICA10111 | Certificate I in Information, Digital Media and Technology | 180 | 210 |
| ICA20111 | Certificate II in Information, Digital Media and Technology | 370 | 560 |
| ICA30111 | Certificate III in Information, Digital Media and Technology | 440 | 690 |
| ICA40111 | Certificate IV in Information Technology | 455 | 1195 |
| ICA40211 | Certificate IV in Information Technology Support | 680 | 950 |
| ICA40311 | Certificate IV in Web-Based Technologies | 600 | 780 |
| ICA40411 | Certificate IV in Information Technology Networking | 650 | 970 |
| ICA40511 | Certificate IV in Programming | 750 | 970 |
| ICA40611 | Certificate IV in Information Technology Testing | 650 | 870 |
| ICA40711 | Certificate IV in Systems Analysis and Design | 870 | 1040 |
| ICA40811 | Certificate IV in Digital Media Technologies | 530 | 895 |
| ICA40911 | Certificate IV in Digital and Interactive Games | 570 | 860 |
| ICA41011 | Certificate IV in Computer Systems Technology | 740 | 1040 |
| ICA50111 | Diploma of Information Technology | 490 | 1360 |
| ICA50211 | Diploma of Digital and Interactive Games | 500 | 925 |
| ICA50311 | Diploma of Information Technology Systems Administration | 640 | 1000 |
| ICA50411 | Diploma of Information Technology Networking | 595 | 1210 |
| ICA50511 | Diploma of Database Design and Development | 700 | 950 |
| ICA50611 | Diploma of Website Development | 705 | 1085 |
| ICA50711 | Diploma of Software Development | 690 | 950 |
| ICA50811 | Diploma of Systems Analysis and Design | 695 | 975 |
| ICA50911 | Diploma of Digital Media Technologies | 655 | 1060 |
| ICA60111 | Advanced Diploma of Information Technology | 595 | 850 |
| ICA60211 | Advanced Diploma of Network Security | 559 | 945 |
| ICA60311 | Advanced Diploma of Information Technology Business Analysis | 610 | 810 |
| ICA60411 | Advanced Diploma of Information Technology Project Management | 530 | 780 |
| ICA60511 | Advanced Diploma of Computer Systems Technology | 1070 | 1400 |
| ICA70111 | Vocational Graduate Certificate in Information Technology and Strategic Management | 225 | 320 |
| ICA70211 | Vocational Graduate Certificate in Information Technology Sustainability | 225 | 320 |

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 ICA11 Information and Communications Technology 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 |
| --- | --- | --- |
| ICADBS401A | Identify physical database requirements | 80 |
| ICADBS402A | Complete database backup and restore | 30 |
| ICADBS403A | Create basic databases | 40 |
| ICADBS404A | Identify and resolve common database performance problems | 30 |
| ICADBS407A | Monitor physical database implementation | 50 |
| ICADBS408A | Link an RFID system to a database | 60 |
| ICADBS409A | Monitor and administer a database | 50 |
| ICADBS412A | Build a database | 30 |
| ICADBS501A | Monitor and improve knowledge management system | 20 |
| ICADBS502A | Design a database | 50 |
| ICADBS503B | Create a data warehouse | 60 |
| ICADBS504A | Integrate database with a website | 25 |
| ICADBS601B | Build a data warehouse | 80 |
| ICADBS602A | Develop a knowledge management strategy | 80 |
| ICADBS603B | Determine suitability of database functionality and scalability | 60 |
| ICADMT401A | Create visual design components for digital media | 40 |
| ICADMT402A | Produce interactive animation | 60 |
| ICADMT403A | Produce and edit digital images | 40 |
| ICADMT501A | Incorporate and edit digital video | 50 |
| ICAGAM301A | Apply simple modelling techniques | 50 |
| ICAGAM302A | Design and apply simple textures to digital art | 50 |
| ICAGAM303A | Review and apply the principles of animation | 60 |
| ICAGAM401A | Produce an interactive game | 60 |
| ICAGAM402A | Identify and apply principles of games design and game playing | 40 |
| ICAGAM403A | Create design documents for interactive games | 30 |
| ICAGAM404A | Apply artificial intelligence in game development | 60 |
| ICAGAM405A | Write story and content for digital games | 30 |
| ICAGAM406A | Create visual design components for interactive games | 40 |
| ICAGAM407A | Write scripts for interactive games | 60 |
| ICAGAM408A | Use 3-D animation interface and toolsets | 40 |
| ICAGAM409A | Create 3-D characters for interactive games | 40 |
| ICAGAM410A | Develop 3-D components for interactive games | 50 |
| ICAGAM412A | Design interactive media | 40 |
| ICAGAM413A | Design and create 3-D digital models | 50 |
| ICAGAM414A | Create audio for digital games | 40 |
| ICAGAM415A | Develop simple environments for 3-D games | 30 |
| ICAGAM416A | Prepare and complete image rendering processes | 50 |
| ICAGAM417A | Apply digital effects to interactive products | 50 |
| ICAGAM418A | Use simple modelling for animation | 40 |
| ICAGAM419A | Build a database to support a computer game | 30 |
| ICAGAM501A | Create design concepts for digital games and 3-D media | 30 |
| ICAGAM503A | Create a complex 3-D interactive computer game | 60 |
| ICAGAM504A | Manage interactive media production | 40 |
| ICAGAM506A | Create complex code for mobile game devices | 60 |
| ICAGAM507A | Develop intermediate 3-D software for games and interactive media | 60 |
| ICAGAM508A | Develop complex 3-D software for games and interactive media | 60 |
| ICAGAM509A | Design interactive 3-D applications for scientific and mathematical modelling | 60 |
| ICAGAM510A | Prepare games for different platforms and delivery modes | 50 |
| ICAGAM511A | Manage testing of games and interactive media | 30 |
| ICAGAM512A | Create and implement designs for a 3-D games environment | 50 |
| ICAGAM514A | Design and create models for a 3-D and digital effects environment | 50 |
| ICAGAM515A | Design and create advanced particles, fluids and bodies for 3-D digital effects | 50 |
| ICAGAM516A | Animate a 3-D character for digital games | 40 |
| ICAGAM517A | Produce a digital animation sequence | 60 |
| ICAGAM518A | Animate physical attributes of models and elements | 30 |
| ICAGAM519A | Manage technical art and rigging in 3-D animation | 50 |
| ICAGAM520A | Create and combine 3-D digital games and components | 30 |
| ICAGAM521A | Create interactive 3-D environments for digital games | 30 |
| ICAGAM522A | Complete digital editing for the 3-D and digital effects environment | 20 |
| ICAGAM523A | Collaborate in the design of 3-D game levels and environments | 40 |
| ICAGAM524A | Integrate multiple data sources into interactive 3-D environments | 30 |
| ICAGAM525A | Apply digital texturing for the 3-D environment in digital games | 30 |
| ICAGAM526A | Create complex 3-D characters for games | 60 |
| ICAGAM527A | Integrate database with online game | 30 |
| ICAGAM528A | Create games for mobile devices | 60 |
| ICAGAM529A | Analyse business opportunities in the digital games environment | 30 |
| ICAGAM530A | Develop and implement physics in a 3-D digital game | 40 |
| ICAGAM531A | Complete compositing to create elements for the 3-D and digital effects environment | 40 |
| ICAICT101A | Operate a personal computer | 30 |
| ICAICT102A | Operate word-processing applications | 30 |
| ICAICT103A | Use, communicate and search securely on the internet | 50 |
| ICAICT104A | Use digital devices | 30 |
| ICAICT105A | Operate spreadsheet applications | 30 |
| ICAICT106A | Operate presentation packages | 25 |
| ICAICT107A | Use personal productivity tools | 20 |
| ICAICT108A | Use digital literacy skills to access the internet | 20 |
| ICAICT201A | Use computer operating systems and hardware | 60 |
| ICAICT202A | Work and communicate effectively in an IT environment | 40 |
| ICAICT203A | Operate application software packages | 60 |
| ICAICT204A | Operate a digital media technology package | 40 |
| ICAICT205A | Design basic organisational documents using computing packages | 40 |
| ICAICT206A | Install software applications | 20 |
| ICAICT207A | Integrate commercial computing packages | 60 |
| ICAICT208A | Operate accounting applications | 40 |
| ICAICT209A | Interact with ICT clients | 20 |
| ICAICT210A | Operate database applications | 40 |
| ICAICT211A | Identify and use basic current industry-specific technologies | 40 |
| ICAICT212A | Incorporate Indigenous needs and perspectives into IT environment | 20 |
| ICAICT301A | Create user documentation | 20 |
| ICAICT302A | Install and optimise operating system software | 20 |
| ICAICT303A | Connect internal hardware components | 20 |
| ICAICT304A | Implement system software changes | 40 |
| ICAICT305A | Identify and use current industry-specific technologies | 60 |
| ICAICT306A | Migrate to new technology | 20 |
| ICAICT307A | Customise packaged software applications for clients | 80 |
| ICAICT308A | Use advanced features of computer applications | 40 |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAICT402A | Determine project specifications and secure client agreement | 20 |
| ICAICT403A | Apply software development methodologies | 20 |
| ICAICT404A | Use online learning tools | 30 |
| ICAICT405A | Develop detailed technical design | 60 |
| ICAICT406A | Build a graphical user interface | 20 |
| ICAICT407A | Maintain website information standards | 30 |
| ICAICT408A | Create technical documentation | 20 |
| ICAICT409A | Develop macros and templates for clients using standard products | 60 |
| ICAICT410A | Conduct post-implementation IT system reviews | 30 |
| ICAICT411A | Select and employ software and hardware testing tools | 40 |
| ICAICT412A | Coordinate and maintain IT work teams | 20 |
| ICAICT413A | Relate to clients on a business level | 40 |
| ICAICT415A | Provide one-to-one instruction | 20 |
| ICAICT416A | Contribute to the development of strategic plans | 40 |
| ICAICT417A | Identify, evaluate and apply current industry-specific technologies to meet industry standards | 60 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT419A | Work effectively in the digital media industry | 30 |
| ICAICT420A | Develop client user interface | 40 |
| ICAICT421A | Connect, maintain and configure hardware components | 40 |
| ICAICT422A | Participate in IT services | 20 |
| ICAICT423A | Select cloud storage strategies | 40 |
| ICAICT501A | Research and review hardware technology options for organisations | 20 |
| ICAICT502A | Develop detailed component specifications from project specifications | 40 |
| ICAICT503A | Validate quality and completeness of system design specifications | 20 |
| ICAICT504A | Confirm transition strategy for a new system | 10 |
| ICAICT505A | Determine acceptable developers for projects | 30 |
| ICAICT506A | Implement process re-engineering strategies | 20 |
| ICAICT507A | Select new technology models for business | 20 |
| ICAICT508A | Evaluate vendor products and equipment | 20 |
| ICAICT509A | Gather data to identify business requirements | 30 |
| ICAICT510A | Determine appropriate IT strategies and solutions | 40 |
| ICAICT511A | Match IT needs with the strategic direction of the enterprise | 50 |
| ICAICT512A | Plan process re-engineering strategies for business | 30 |
| ICAICT514A | Identify and manage the implementation of current industry-specific technologies | 60 |
| ICAICT515A | Verify client business requirements | 40 |
| ICAICT601A | Develop IT strategic and action plans | 30 |
| ICAICT602A | Develop contracts and manage contracted performance | 30 |
| ICAICT603A | Manage the use of appropriate development methodologies | 30 |
| ICAICT604A | Identify and implement business innovation | 60 |
| ICAICT605A | Implement a knowledge management strategy | 30 |
| ICAICT606A | Develop communities of practice | 30 |
| ICAICT608A | Interact with clients on a business level | 40 |
| ICAICT609A | Lead the evaluation and implementation of current industry-specific technologies | 80 |
| ICAICT610A | Manage copyright, ethics and privacy in an IT environment | 30 |
| ICAICT701A | Lead research into identifying new marketplace opportunities | 80 |
| ICAICT702A | Direct ICT services | 80 |
| ICAICT703A | Endorse business plan components for a new initiative | 80 |
| ICAICT704A | Direct ICT in a supply chain | 80 |
| ICAICT705A | Direct ICT procurement | 80 |
| ICAICT706A | Direct outsourced ICT services | 80 |
| ICAICT707A | Direct research and business response to new ICT technology | 80 |
| ICAICT708A | Direct the development of a knowledge management strategy for a business | 80 |
| ICAICT709A | Facilitate business analysis | 80 |
| ICAICT710A | Synchronise IT projects | 80 |
| ICAICT711A | Manage an information architecture project | 80 |
| ICAICT712A | Develop a business intelligence framework | 80 |
| ICAICT713A | Manage IT services | 80 |
| ICAICT814A | Develop cloud computing strategies for a business | 40 |
| ICANWK301A | Provide network systems administration | 60 |
| ICANWK302A | Identify and resolve network problems | 50 |
| ICANWK303A | Configure and administer a network operating system | 70 |
| ICANWK304A | Administer network peripherals | 20 |
| ICANWK305A | Install and manage network protocols | 40 |
| ICANWK306A | Evaluate characteristics of cloud computing solutions and services | 40 |
| ICANWK401A | Install and manage a server | 40 |
| ICANWK402A | Install and configure virtual machines for sustainable ICT | 50 |
| ICANWK403A | Manage network and data integrity | 40 |
| ICANWK404A | Install, operate and troubleshoot a small enterprise branch network | 60 |
| ICANWK405A | Build a small wireless local area network | 20 |
| ICANWK406A | Install, configure and test network security | 50 |
| ICANWK407A | Install and configure client-server applications and services | 40 |
| ICANWK408A | Configure a desktop environment | 40 |
| ICANWK409A | Create scripts for networking | 60 |
| ICANWK410A | Install hardware to a network | 40 |
| ICANWK411A | Deploy software to networked computers | 40 |
| ICANWK412A | Create network documentation | 40 |
| ICANWK414A | Create a common gateway interface script | 40 |
| ICANWK416A | Build security into virtual private networks | 20 |
| ICANWK417A | Build an enterprise wireless network | 80 |
| ICANWK418A | Implement backbone technologies in a local area network | 40 |
| ICANWK419A | Identify and use current virtualisation technologies | 40 |
| ICANWK501A | Plan, implement and test enterprise communication solutions | 80 |
| ICANWK502A | Implement secure encryption technologies | 20 |
| ICANWK503A | Install and maintain valid authentication processes | 25 |
| ICANWK504A | Design and implement an integrated server solution | 50 |
| ICANWK505A | Design, build and test a network server | 50 |
| ICANWK506A | Configure, verify and troubleshoot WAN links and IP services in a medium enterprise network | 90 |
| ICANWK507A | Install, operate and troubleshoot medium enterprise routers | 120 |
| ICANWK508A | Install, operate and troubleshoot medium enterprise switches | 90 |
| ICANWK509A | Design and implement a security perimeter for ICT networks | 60 |
| ICANWK510A | Develop, implement and evaluate system and application security | 60 |
| ICANWK511A | Manage network security | 80 |
| ICANWK513A | Manage system security | 50 |
| ICANWK514A | Model preferred system solutions | 30 |
| ICANWK515A | Develop configuration management protocols | 30 |
| ICANWK516A | Determine best-fit topology for a local network | 20 |
| ICANWK517A | Determine best-fit topology for a wide area network | 20 |
| ICANWK518A | Design an enterprise wireless local area network | 30 |
| ICANWK519A | Design an IT security framework | 30 |
| ICANWK520A | Design IT system security controls | 30 |
| ICANWK521A | Install, configure and test a payment gateway | 30 |
| ICANWK522A | Build decks using wireless markup language | 30 |
| ICANWK524A | Install and configure network access storage devices | 40 |
| ICANWK525B | Configure an enterprise virtual computing environment | 60 |
| ICANWK527B | Manage an enterprise virtual computing environment | 60 |
| ICANWK529A | Install and manage complex ICT networks | 100 |
| ICANWK531A | Configure an internet gateway | 40 |
| ICANWK532A | Identify and resolve network problems | 50 |
| ICANWK533A | Configure and manage advanced virtual computing environments | 40 |
| ICANWK534A | Monitor and troubleshoot virtual computing environments | 40 |
| ICANWK535A | Install an enterprise virtual computing environment | 60 |
| ICANWK601A | Design and implement a security system | 90 |
| ICANWK602A | Plan, configure and test advanced server based security | 80 |
| ICANWK603A | Plan, configure and test advanced internetwork routing solutions | 120 |
| ICANWK604A | Plan and configure advanced internetwork switching solutions | 120 |
| ICANWK605A | Design and configure secure integrated wireless systems | 40 |
| ICANWK606A | Implement voice applications over secure wireless networks | 40 |
| ICANWK607A | Design and implement wireless network security | 60 |
| ICANWK608A | Configure network devices for a secure network infrastructure | 40 |
| ICANWK609A | Configure and manage intrusion prevention system on network sensors | 40 |
| ICANWK610A | Design and build integrated VoIP networks | 50 |
| ICANWK611A | Configure call processing network elements for secure VoIP networks | 40 |
| ICANWK612A | Plan and manage troubleshooting advanced integrated IP networks | 120 |
| ICANWK613A | Develop plans to manage structured troubleshooting process of enterprise networks | 40 |
| ICANWK614A | Manage IT security | 80 |
| ICANWK615A | Design and configure desktop virtualisation | 80 |
| ICANWK616A | Manage security, privacy and compliance of cloud service deployment | 40 |
| ICAPMG401A | Support small scale IT projects | 60 |
| ICAPMG501A | Manage IT projects | 80 |
| ICAPMG601A | Establish IT project governance | 40 |
| ICAPMG602A | Manage IT project initiation | 40 |
| ICAPMG603A | Manage IT project planning | 40 |
| ICAPMG604A | Manage IT project delivery | 40 |
| ICAPMG605A | Manage IT project closure | 40 |
| ICAPMG606A | Manage IT project quality | 40 |
| ICAPMG607A | Manage and control IT project risks | 40 |
| ICAPMG608A | Manage IT project systems implementation | 40 |
| ICAPMG609A | Plan and direct complex IT projects | 80 |
| ICAPRG301A | Apply introductory programming techniques | 40 |
| ICAPRG401A | Maintain open-source code programs | 20 |
| ICAPRG402A | Apply query language | 60 |
| ICAPRG403A | Develop data-driven applications | 60 |
| ICAPRG404A | Test applications | 50 |
| ICAPRG405A | Automate processes | 40 |
| ICAPRG406A | Apply introductory object-oriented language skills | 60 |
| ICAPRG407A | Write script for software applications | 40 |
| ICAPRG409A | Develop mobile applications | 50 |
| ICAPRG410A | Build a user interface | 50 |
| ICAPRG412A | Configure and maintain databases | 50 |
| ICAPRG413A | Use a library or pre-existing components | 40 |
| ICAPRG414A | Apply introductory programming skills in another language | 60 |
| ICAPRG415A | Apply skills in object-oriented design | 40 |
| ICAPRG416A | Manage a software component reuse library | 40 |
| ICAPRG417A | Apply mathematical techniques for software development | 30 |
| ICAPRG418A | Apply intermediate programming skills in another language | 80 |
| ICAPRG419A | Analyse software requirements | 60 |
| ICAPRG425A | Use structured query language | 60 |
| ICAPRG426A | Prepare software development review | 30 |
| ICAPRG427A | Use XML effectively | 50 |
| ICAPRG428A | Use regular expressions in programming languages | 40 |
| ICAPRG501A | Apply advanced object-oriented language skills | 80 |
| ICAPRG502A | Manage a project using software management tools | 60 |
| ICAPRG503A | Debug and monitor applications | 40 |
| ICAPRG504A | Deploy an application to a production environment | 40 |
| ICAPRG505A | Build advanced user interface | 60 |
| ICAPRG506A | Design application architecture | 40 |
| ICAPRG507A | Implement security for applications | 50 |
| ICAPRG508A | Create mashups | 50 |
| ICAPRG509A | Build using rapid application development | 40 |
| ICAPRG510A | Maintain custom software | 40 |
| ICAPRG511A | Monitor and support data conversion to new IT system | 10 |
| ICAPRG512A | Prepare for the build phase of an IT system | 20 |
| ICAPRG513A | Coordinate the build phase of an IT system | 20 |
| ICAPRG514A | Prepare for software development using rapid application development | 30 |
| ICAPRG515A | Review developed software | 30 |
| ICAPRG516A | Develop integration blueprint for IT systems | 20 |
| ICAPRG517A | Install, test and evaluate pilot version of IT system | 20 |
| ICAPRG518A | Monitor the system pilot | 20 |
| ICAPRG520A | Validate an application design against specifications | 40 |
| ICAPRG523A | Apply advanced programming skills in another language | 80 |
| ICAPRG524A | Develop high-level object-oriented class specifications | 60 |
| ICAPRG525A | Build Java applets | 30 |
| ICAPRG526A | Maintain functionality of legacy code programs | 40 |
| ICAPRG527A | Apply intermediate object-oriented language skills | 60 |
| ICAPRG528A | Perform IT data conversion | 20 |
| ICAPRG529A | Apply testing techniques for software development | 40 |
| ICAPRG601A | Develop advanced mobile multi-touch applications | 80 |
| ICAPRG602A | Manage the development of technical solutions from business specifications | 40 |
| ICAPRG604A | Create cloud computing services | 60 |
| ICASAD401A | Develop and present feasibility reports | 30 |
| ICASAD501A | Model data objects | 30 |
| ICASAD502A | Model data processes | 30 |
| ICASAD503A | Minimise risk of new technologies to business solutions | 30 |
| ICASAD504A | Implement quality assurance processes for business solutions | 30 |
| ICASAD505A | Develop technical requirements for business solutions | 30 |
| ICASAD506A | Produce a feasibility report | 30 |
| ICASAD601A | Perform IT-focused enterprise analysis | 40 |
| ICASAD602A | Conduct knowledge audits | 40 |
| ICASAD603A | Plan and monitor business analysis activities in an IT environment | 40 |
| ICASAD604A | Manage and communicate IT solutions | 40 |
| ICASAD605A | Elicit IT requirements | 40 |
| ICASAD606A | Analyse stakeholder requirements | 40 |
| ICASAD607A | Manage assessment and validation of IT solutions | 40 |
| ICASAS201A | Maintain inventories for equipment, software and documentation | 10 |
| ICASAS202A | Apply problem-solving techniques to routine IT malfunctions | 20 |
| ICASAS203A | Connect hardware peripherals | 20 |
| ICASAS204A | Record client support requirements | 10 |
| ICASAS205A | Maintain IT system integrity | 20 |
| ICASAS206A | Detect and protect from spam and destructive software | 10 |
| ICASAS207A | Protect and secure information assets | 20 |
| ICASAS208A | Maintain IT equipment and consumables | 20 |
| ICASAS209A | Connect and use a home-based local wireless network | 30 |
| ICASAS301A | Run standard diagnostic tests | 20 |
| ICASAS303A | Care for computer hardware | 20 |
| ICASAS304A | Provide basic system administration | 20 |
| ICASAS305A | Provide IT advice to clients | 40 |
| ICASAS306A | Maintain equipment and software | 20 |
| ICASAS307A | Install, configure and secure a small office home office network | 50 |
| ICASAS401A | Perform unit test for a class | 40 |
| ICASAS402A | Implement configuration management strategies | 30 |
| ICASAS403A | Review site environmental factors prior to IT system implementation | 20 |
| ICASAS404A | Acquire IT system components | 10 |
| ICASAS405A | Identify and evaluate IT industry vendor technologies | 10 |
| ICASAS406A | Implement and hand over system components | 20 |
| ICASAS407A | Conduct pre-installation audit for software installation | 20 |
| ICASAS408A | Complete data transition in data migration process | 20 |
| ICASAS409A | Manage risks involving ICT systems and technology | 20 |
| ICASAS410A | Identify and resolve client IT problems | 40 |
| ICASAS411A | Assist with policy development for client support procedures | 20 |
| ICASAS412A | Action change requests | 40 |
| ICASAS413A | Manage resolution of system faults on a live system | 40 |
| ICASAS414A | Evaluate system status | 20 |
| ICASAS415A | Optimise IT system performance | 30 |
| ICASAS416A | Implement maintenance procedures | 10 |
| ICASAS417A | Undertake IT system capacity planning | 50 |
| ICASAS418A | Monitor and administer security of an IT system | 30 |
| ICASAS419A | Support system software | 50 |
| ICASAS420A | Provide first-level remote help-desk support | 30 |
| ICASAS421A | Support users and troubleshoot desktop applications | 20 |
| ICASAS422A | Scope implementation requirements | 20 |
| ICASAS424A | Support different operating systems | 40 |
| ICASAS425A | Configure and troubleshoot operating system software | 40 |
| ICASAS426A | Locate and troubleshoot IT equipment, system and software faults | 40 |
| ICASAS501A | Develop, implement and evaluate an incident response plan | 30 |
| ICASAS502A | Establish and maintain client user liaison | 20 |
| ICASAS503A | Perform systems tests | 30 |
| ICASAS504A | Develop and conduct client acceptance test | 20 |
| ICASAS505A | Review and update disaster recovery and contingency plans | 30 |
| ICASAS506A | Update IT system operational procedures | 30 |
| ICASAS507A | Implement and evaluate systems for regulatory and standards compliance | 20 |
| ICASAS509A | Provide client IT support services | 20 |
| ICASAS510A | Review and develop IT maintenance strategy | 30 |
| ICASAS511A | Prioritise IT change requests | 20 |
| ICASAS512A | Review and manage delivery of maintenance services | 20 |
| ICASAS513A | Develop detailed test plans | 30 |
| ICASAS514A | Perform integration tests | 30 |
| ICASAS515A | Manage the testing process | 20 |
| ICASAS516A | Perform stress and load tests on integrated platforms | 30 |
| ICASAS517A | Use network tools | 50 |
| ICASAS518A | Install and upgrade operating systems | 50 |
| ICASAS601A | Implement change-management processes | 30 |
| ICASUS701A | Plan and manage virtualisation for IT sustainability | 80 |
| ICASUS702A | Conduct a business case study for integrating sustainability in IT planning and design projects | 80 |
| ICASUS703A | Research strategies using SAP solutions for sustainable economic and environmental outcomes | 80 |
| ICAWEB201A | Use social media tools for collaboration and engagement | 20 |
| ICAWEB301A | Create a simple markup language document | 30 |
| ICAWEB302A | Build simple websites using commercial programs | 40 |
| ICAWEB303A | Produce digital images for the web | 30 |
| ICAWEB401A | Design a website to meet technical requirements | 40 |
| ICAWEB402A | Confirm accessibility of websites for people with special needs | 10 |
| ICAWEB403A | Transfer content to a website using commercial packages | 20 |
| ICAWEB404A | Maintain website performance | 30 |
| ICAWEB405A | Monitor traffic and compile website traffic reports | 15 |
| ICAWEB406A | Create website testing procedures | 20 |
| ICAWEB407A | Conduct operational acceptance tests of websites | 20 |
| ICAWEB408A | Ensure basic website security | 20 |
| ICAWEB409A | Develop cascading style sheets | 20 |
| ICAWEB410A | Apply web authoring tool to convert client data for websites | 20 |
| ICAWEB411A | Produce basic client-side script for dynamic web pages | 40 |
| ICAWEB412A | Produce interactive web animation | 80 |
| ICAWEB413A | Optimise search engines | 50 |
| ICAWEB414A | Design simple web page layouts | 50 |
| ICAWEB415A | Produce server-side script for dynamic web pages | 60 |
| ICAWEB416A | Customise content management system | 80 |
| ICAWEB417A | Integrate social web technologies | 40 |
| ICAWEB418A | Use development software and IT tools to build a basic website | 20 |
| ICAWEB419A | Develop guidelines for uploading information to a website | 20 |
| ICAWEB420A | Write content for web pages | 30 |
| ICAWEB421A | Ensure website content meets technical protocols and standards | 30 |
| ICAWEB422A | Ensure website access and useability | 15 |
| ICAWEB423A | Ensure dynamic website security | 30 |
| ICAWEB424A | Evaluate and select a web hosting service | 15 |
| ICAWEB425A | Apply structured query language to extract and manipulate data | 60 |
| ICAWEB429A | Create a markup language document to specification | 20 |
| ICAWEB501A | Build a dynamic website | 60 |
| ICAWEB502A | Create dynamic web pages | 40 |
| ICAWEB503A | Create web-based programs | 60 |
| ICAWEB504A | Build a document using eXtensible markup language | 30 |
| ICAWEB505A | Develop complex web page layouts | 40 |
| ICAWEB506A | Develop complex cascading style sheets | 40 |
| ICAWEB507A | Customise a complex IT content management system | 80 |
| ICAWEB508A | Develop website information architecture | 30 |
| ICAWEB509A | Use site server tools for transaction management | 20 |
| ICAWEB510A | Analyse information and assign meta-tags | 20 |
| ICAWEB511A | Implement quality assurance process for websites | 20 |
| ICAWEB512A | Administer business websites and servers | 30 |
| ICAWEB515A | Implement and use web services | 50 |
| ICAWEB516A | Research and apply emerging web technology trends | 80 |

SAMPLE TRAINING PROGRAMS

A range of Sample Training Plans have been provided to demonstrate the flexibility of qualifications contained in the **ICA11 Information and Communications Technology Training Package**, but are by no means mandatory.

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| --- | --- |
| **Occupation /****Work Function** | Entry level qualification (see TP) |
| **Qualification Title**  | Certificate I in Information, Digital Media and Technology |
| **Qualification Code** | ICA10111 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core***  |
| ICAICT101A | Operate a personal computer | 30 |
| ICAICT102A | Operate word-processing applications | 30 |
| ICAICT103A | Use, communicate and search securely on the internet | 50 |
| ICAICT104A | Use digital devices | 30 |
| ***Electives*** |
| ICAICT105A | Operate spreadsheet applications | 30 |
| ICAICT106A | Operate presentation packages | 25 |
| **Total Hours** | **195** |

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| **Occupation /****Work Function** | Junior ICT & Office Support  |
| **Qualification Title**  | Certificate II in Information, Digital Media and Technology |
| **Qualification Code** | ICA20111 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBOHS201A | Participate in OHS processes | 20 |
| BSBSUS201A | Participate in environmentally sustainable work practices | 20 |
| ICAICT201A | Use computer operating systems and hardware | 60 |
| ICAICT202A | Work and communicate effectively in an IT environment | 40 |
| ICAICT203A | Operate application software packages | 60 |
| ICAICT204A | Operate a digital media technology package | 40 |
| ICAWEB201A | Use social media tools for collaboration and engagement | 20 |
| ***Electives*** |
| ICAICT205A | Design basic organisational documents using computing packages | 40 |
| ICAICT207A | Integrate commercial computing packages | 60 |
| ICAICT211A | Identify and use basic current industry-specific technologies | 40 |
| ICAICT210A | Operate database applications | 40 |
| ICASAS208A | Maintain IT equipment and consumables | 20 |
| ICASAS202A | Apply problem-solving techniques to routine IT malfunctions | 20 |
| ICASAS204A | Record client support requirements | 10 |
| **Total Hours** | **490** |

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| **Occupation /****Work Function** | IT Support Assistant |
| **Qualification Title**  | Certificate III in Information, Digital Media and Technology |
| **Qualification Code** | ICA30111 |
| **Description** | Appropriate for a person providing technical support on software and web based applications either via a call centre or on customer premises. This role includes providing IT advice to clients, providing basic website administration and customising client software. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWHS304A | Participate effectively in WHS communication and consultation processes | 30 |
| BSBSUS301A | Implement and monitor environmentally sustainable work practices | 40 |
| ICAICT202A | Work and communicate effectively in an IT environment | 40 |
| ICAICT301A | Create user documentation | 20 |
| ICAICT302A | Install and optimise operating system software | 20 |
| ICASAS301A | Run standard diagnostic tests | 20 |
| ***Electives — Group A Applications*** |
| ICAICT203A | Operate application software packages | 60 |
| ICAICT304A | Implement system software changes | 40 |
| ICAICT307A | Customise packaged software applications for clients | 80 |
| ICAICT308A | Use advanced features of computer applications | 40 |
| ICAICT409A | Develop macros and templates for clients using standard products | 60 |
| ***Electives from any other specialist group or from Group F General electives*** |
| ICAICT306A | Migrate to new technology | 20 |
| ICAICT305A | Identify and use current industry-specific technologies | 60 |
| BSBEBU401A | Review and maintain a website | 50 |
| ICAWEB302A | Build simple websites using commercial programs | 40 |
| ICASAS305A | Provide IT advice to clients | 40 |
| ICASAS306A | Maintain equipment and software | 20 |
| **Total Hours** | **680** |

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| **Occupation /****Work Function** | Junior IT Officer |
| **Qualification Title**  | Certificate III in Information, Digital Media and Technology |
| **Qualification Code** | ICA30111 |
| **Description** | Appropriate for a person providing technical support computing equipment and support at either enterprise or customer premises. This role includes providing IT advice to clients, providing basic system and equipment administration and small office networking. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWHS304A | Participate effectively in WHS communication and consultation processes | 30 |
| BSBSUS301A | Implement and monitor environmentally sustainable work practices | 40 |
| ICAICT202A | Work and communicate effectively in an IT environment | 40 |
| ICAICT301A | Create user documentation | 20 |
| ICAICT302A | Install and optimise operating system software | 20 |
| ICASAS301A | Run standard diagnostic tests | 20 |
| ***Electives Group* C *—Support***  |
| ICAICT303A | Connect internal hardware components | 20 |
| ICASAS303A | Care for computer hardware | 20 |
| ICASAS304A | Provide basic system administration | 20 |
| ICASAS305A | Provide IT advice to clients | 40 |
| ICASAS306A | Maintain equipment and software | 20 |
| ***Electives from any other specialist group or from Group F General electives*** |
| ICAICT306A | Migrate to new technology | 20 |
| ICAICT305A | Identify and use current industry-specific technologies | 60 |
| ICANWK302A | Identify and resolve network problems | 50 |
| ICANWK304A | Administer network peripherals | 20 |
| ICASAS307A | Install, configure and secure a small office home office network | 50 |
| ICANWK305A | Install and manage network protocols | 40 |
| **Total Hours** | **530** |

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| **Occupation / Work Function** | Web Application Support |
| **Qualification Title**  | Certificate III in Information, Digital Media and Technology |
| **Qualification Code** | ICA30111 |
| **Description** | Appropriate for a person providing website support and technical support of web based applications either via a call centre or on customer premises. This role includes providing IT advice to clients, providing basic website administration and maintaining websites. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWHS304A | Participate effectively in WHS communication and consultation processes | 30 |
| BSBSUS301A | Implement and monitor environmentally sustainable work practices | 40 |
| ICAICT202A | Work and communicate effectively in an IT environment | 40 |
| ICAICT301A | Create user documentation | 20 |
| ICAICT302A | Install and optimise operating system software | 20 |
| ICASAS301A | Run standard diagnostic tests | 20 |
| ***Electives — Group* D *Web Technologies*** |
| BSBEBU401A | Review and maintain a website | 50 |
| ICAWEB201A | Use social media tools for collaboration and engagement | 20 |
| ICAWEB301A | Create a simple markup language document | 30 |
| ICAWEB302A | Build simple websites using commercial programs | 40 |
| ICAWEB303A | Produce digital images for the web | 30 |
| ***Electives from any other specialist group or from Group F General Electives*** |
| BSBIPR301A | Comply with organisational requirements for protection and use of intellectual property | 40 |
| ICAICT305A | Identify and use current industry-specific technologies | 60 |
| CUFANM301A | Create 2D digital animations | 35 |
| ICAGAM303A | Review and apply the principles of animation | 60 |
| CUFDIG304A | Create visual design components | 30 |
| CUFDIG302A | Author interactive sequences | 40 |
| **Total Hours** | **605** |

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| **Occupation / Work Function** | Networking, Generic, Technical Support, Programming |
| **Qualification Title**  | Certificate IV in Information Technology |
| **Qualification Code** | ICA40111 |
| **Description** | Qualification has been devised to provide general Technical Support skills and fundamental programming skills.Technical Support Help Desk professionals are usually the first point of contact for either external clients or internal customers who require help with problems or queries regarding technical issues.Entry programmer assists in the translation or requirements for new or modified computer applications into program specifications. This may involve installing IT, designing, modifying, testing and writing programs, supporting work teams and solving problems with software. The role requires knowledge of a variety of programming languages. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWHS304A | Participate effectively in WHS communication and consultation processes | 30 |
| BSBSUS301A | Implement and monitor environmentally sustainable work practices | 40 |
| ICAICT202A | Work and communicate effectively in an IT environment | 40 |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ***Electives*** |
| ***Group A Networking*** |
| ICANWK404A | Install, operate and troubleshoot a small enterprise branch network | 60 |
| ICANWK405A | Build a small wireless local area network | 20 |
| ICANWK409A | Create scripts for networking | 60 |
| ***Group B Programming*** |
| ICAPRG401A | Maintain open-source code programs | 20 |
| ICAPRG406A | Apply introductory object-oriented language skills | 60 |
| ICAPRG418A | Apply intermediate programming skills in another language | 80 |
| ICAPRG425A | Use structured query language | 60 |
| ***Group C IT Support*** |
| ICADBS403A | Create basic databases | 40 |
| ICAICT406A | Build a graphical user interface | 20 |
| ICAICT408A | Create technical documentation | 20 |
| ICAICT417A | Identify, evaluate and apply current industry-specific technologies to meet industry standards | 60 |
| ICASAS410A | Identify and resolve client IT problems | 40 |

**Continued**

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| **Occupation / Work Function** | Networking, Generic, Technical Support, Programming |
| **Qualification Title**  | Certificate IV in Information Technology |
| **Qualification Code** | ICA40111 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Group D Web Design and Development*** |
| ICAWEB420A | Write content for web pages | 30 |
| ***Group G Project Management*** |
| ICAPMG401A | Support small scale IT projects | 60 |
| ***Electives from elsewhere in ICA11*** |
| ICTTEN4199A | Install, configure and test a router | 60 |
| **Total Hours** | **880** |

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| **Occupation /****Work Function** | Level 1 Helpdesk |
| **Qualification Title**  | Certificate IV in Information Technology Support |
| **Qualification Code** | ICA40211 |
| **Description** | Appropriate for a person providing technical support for enterprise or customer premises running networked computer and software applications. This role includes providing IT advice and instruction to clients, troubleshooting applications, remote network administration and systems maintenance. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWHS403A | Contribute to implementing and maintaining the WHS consultation and participation processes | 40 |
| BSBSUS301A | Implement and monitor environmentally sustainable work practices | 40 |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAICT408A | Create technical documentation | 20 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICASAS307A | Install, configure and secure a small office home office network | 50 |
| ICASAS410A | Identify and resolve client IT problems | 40 |
| ICASAS412A | Action change requests | 40 |
| ***Electives —Group* C *Service desk*** |
| ICAICT421A | Connect, maintain and configure hardware components | 40 |
| ICASAS414A | Evaluate system status | 20 |
| ICASAS421A | Support users and troubleshoot desktop applications | 20 |
| ICASAS425A | Configure and troubleshoot operating system software | 40 |
| ICASAS426A | Locate and troubleshoot IT equipment, system and software faults | 40 |
| ***Electives from other Specialist Groups or from Group E Electives*** |
| ICAICT413A | Relate to clients on a business level | 40 |
| ICAICT415A | Provide one-to-one instruction | 20 |
| ICAICT422A | Participate in IT services | 20 |
| ICANWK409A | Create scripts for networking | 60 |
| ICANWK411A | Deploy software to networked computers | 40 |
| ICASAS411A | Assist with policy development for client support procedures | 20 |
| ICASAS413A | Manage resolution of system faults on a live system | 40 |
| ICASAS416A | Implement maintenance procedures | 10 |
| ICASAS420A | Provide first-level remote help-desk support | 30 |
| **Total Hours** | **750** |

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| **Occupation /****Work Function** | Webmaster |
| **Qualification Title**  | Certificate IV in Web-Based Technologies |
| **Qualification Code** | ICA40311 |
| **Description** | A webmaster is responsible for maintaining websites for individuals and companies and for ensuring that they are easy to navigate and address the needs of the client and the target audience. The core job of a webmaster is to monitor, maintain and update the performance of existing websites. Technical tasks are performed to make sure that a website works properly and can be accessed quickly. Additionally, a webmaster is responsible for; search engine optimisation, file security, making sure the web server hardware and software is running properly and examining traffic of sites. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBOHS302B | Participate effectively in OHS communication and consultative processes | 30 |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAWEB401A | Design a website to meet technical requirements | 40 |
| ICAWEB402A | Confirm accessibility of websites for people with special needs | 10 |
| ICAWEB403A | Transfer content to a website using commercial packages | 20 |
| ICAWEB424A | Evaluate and select a web hosting service | 15 |
| ICAWEB429A | Create a markup language document to specification | 20 |
| ***Electives* Group A Administration** |
| ICAWEB404A | Maintain website performance | 30 |
| ICAWEB405A | Monitor traffic and compile website traffic reports | 15 |
| ICAWEB406A | Create website testing procedures | 20 |
| ICAWEB407A | Conduct operational acceptance tests of websites | 20 |
| ICAWEB408A | Ensure basic website security | 20 |
| ***Electives from other Specialist Groups — Group B Design and Development*** |
| ICAWEB409A | Develop cascading style sheets | 20 |
| ICADBS403A | Create basic databases | 40 |
| ICAWEB411A | Produce basic client-side script for dynamic web pages | 40 |
| ICAWEB415A | Produce server-side script for dynamic web pages | 60 |
| ICAWEB425A | Apply structured query language to extract and manipulate data | 60 |
| ***Group C General electives, or elsewhere in ICA11***  |
| ICANWK401A | Install and manage a server | 40 |
| ICAWEB413A | Optimise search engines | 50 |
| ICAWEB414A | Design simple web page layouts | 50 |
| ICAWEB421A | Ensure website content meets technical protocols and standards | 30 |
| **Total Hours** | **710** |

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| **Occupation /****Work Function** | Network support technician  |
| **Qualification Title**  | Certificate IV in Information Technology Networking |
| **Qualification Code** | ICA40411 |
| **Description** | Appropriate for an for an individual installing and managing small scale networks either as an independent network support technician or as part of a team. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWHS304A | Participate effectively in WHS communication and consultation processes | 30 |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICANWK401A | Install and manage a server | 40 |
| ICANWK402A | Install and configure virtual machines for sustainable ICT | 50 |
| ICANWK403A | Manage network and data integrity | 40 |
| ICANWK404A | Install, operate and troubleshoot a small enterprise branch network | 60 |
| ICTTEN4198A | Install, configure and test an internet protocol network | 50 |
| ***Electives from list*** |
| ICANWK409A | Create scripts for networking | 60 |
| ICANWK406A | Install, configure and test network security | 50 |
| ICASAS426A | Locate and troubleshoot IT equipment, system and software faults | 40 |
| ICANWK408A | Configure a desktop environment | 40 |
| ICANWK412A | Create network documentation | 40 |
| ICANWK410A | Install hardware to a network | 40 |
| ICANWK405A | Build a small wireless local area network | 20 |
| ICTTEN4199A | Install, configure and test a router | 60 |
| ***Electives from elsewhere in ICA11*** |
| ICANWK507A | Install, operate and troubleshoot medium enterprise routers | 120 |
| **Total Hours** | **820** |

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| **Occupation /****Work Function** | Assistant Programmer |
| **Qualification Title**  | Certificate IV in Programming |
| **Qualification Code** | ICA40511 |
| **Description** | This qualification develops basic programming skills in programming languages, which allows them to work as an assistant programmer in a team of software developers. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAPRG402A | Apply query language | 60 |
| ICAPRG403A | Develop data-driven applications | 60 |
| ICAPRG404A | Test applications | 50 |
| ICAPRG405A | Automate processes | 40 |
| ICAPRG406A | Apply introductory object-oriented language skills | 60 |
| ICAPRG410A | Build a user interface | 50 |
| ICAPRG414A | Apply introductory programming skills in another language | 60 |
| ICAPRG415A | Apply skills in object-oriented design | 40 |
| ICAPRG419A | Analyse software requirements | 60 |
| ***Electives from list*** |
| ICAICT417A | Identify, evaluate and apply current industry-specific technologies to meet industry standards | 60 |
| ICAPMG401A | Support small scale IT projects | 60 |
| ICASAD401A | Develop and present feasibility reports | 30 |
| ICAPRG427A | Use XML effectively | 50 |
| ICAPRG418A | Apply intermediate programming skills in another language | 80 |
| ***Electives from elsewhere in ICA11*** |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAWEB429A | Create a markup language document to specification | 20 |
| ICASAS401A | Perform unit test for a class | 40 |
| **Total Hours** | **900** |

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| **Occupation /****Work Function** | Junior Web Tester |
| **Qualification Title**  | Certificate IV in Information Technology Testing |
| **Qualification Code** | ICA40611 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBSUS301A | Implement and monitor environmentally sustainable work practices | 40 |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAICT408A | Create technical documentation | 20 |
| ICAICT411A | Select and employ software and hardware testing tools | 40 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAPMG401A | Support small scale IT projects | 60 |
| ICAPRG405A | Automate processes | 40 |
| ICASAS301A | Run standard diagnostic tests | 20 |
| ***Electives from list*** |
| ICAPRG404A | Test applications | 50 |
| ICASAS503A | Perform systems tests | 30 |
| ICASAS504A | Develop and conduct client acceptance test | 20 |
| ICASAS515A | Manage the testing process | 20 |
| ICASAS516A | Perform stress and load tests on integrated platforms | 30 |
| ICAWEB406A | Create website testing procedures | 20 |
| ICAWEB407A | Conduct operational acceptance tests of websites | 20 |
| ICAWEB423A | Ensure dynamic website security | 30 |
| ***Electives from elsewhere in ICA11*** |
| ICAWEB415A | Produce server-side script for dynamic web pages | 60 |
| ICAWEB421A | Ensure website content meets technical protocols and standards | 30 |
| ICAWEB422A | Ensure website access and useability | 15 |
| ICAWEB429A | Create a markup language document to specification | 20 |
| **Total Hours** | **645** |

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| **Occupation /****Work Function** | Junior Systems Support |
| **Qualification Title**  | Certificate IV in Systems Analysis and Design |
| **Qualification Code** | ICA40711 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBSUS301A | Implement and monitor environmentally sustainable work practices | 40 |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAICT403A | Apply software development methodologies | 20 |
| ICAICT405A | Develop detailed technical design | 60 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAPRG405A | Automate processes | 40 |
| ICASAD401A | Develop and present feasibility reports | 30 |
| ***Electives from list*** |
| BSBCRT401A | Articulate, present and debate ideas | 40 |
| ICADBS401A | Identify physical database requirements | 80 |
| ICAICT402A | Determine project specifications and secure client agreement | 20 |
| ICAICT413A | Relate to clients on a business level | 40 |
| ICAPMG401A | Support small scale IT projects | 60 |
| ICAPRG406A | Apply introductory object-oriented language skills | 60 |
| ICAPRG415A | Apply skills in object-oriented design | 40 |
| ICAPRG425A | Use structured query language | 60 |
| ICAICT408A | Create technical documentation | 20 |
| ICADBS412A | Build a database | 30 |
| ICAPRG404A | Test applications | 50 |
| ***Electives from elsewhere in ICA11*** |
| ICAICT503A | Validate quality and completeness of system design specifications | 20 |
| ICAPRG410A | Build a user interface | 50 |
| ICAPRG427A | Use XML effectively | 50 |
| ICASAS401A | Perform unit test for a class | 40 |
| **Total Hours** | **930** |

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| **Occupation /****Work Function** | Multimedia Developer and web developer |
| **Qualification Title**  | Certificate IV in Digital Media Technologies |
| **Qualification Code** | ICA40811 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBCRT401A | Articulate, present and debate ideas | 40 |
| BSBOHS302B | Participate effectively in OHS communication and consultative processes | 30 |
| CUFDIG401A | Author interactive media | 50 |
| ICAICT404A | Use online learning tools | 30 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT419A | Work effectively in the digital media industry | 30 |
| ICAPMG401A | Support small scale IT projects | 60 |
| ***Specialist elective units*** |
| ***Group A Web development*** |
| ICAWEB301A | Create a simple markup language document | 30 |
| ICAWEB409A | Develop cascading style sheets | 20 |
| ICAWEB411A | Produce basic client-side script for dynamic web pages | 40 |
| ICAWEB414A | Design simple web page layouts | 50 |
| ICAWEB406A | Create website testing procedures | 20 |
| ***Group C Interactive media*** |
| CUFANM301A | Create 2D digital animations | 35 |
| ICADMT401A | Create visual design components for digital media | 40 |
| ICADMT402A | Produce interactive animation | 60 |
| ICADMT403A | Produce and edit digital images | 40 |
| ***Group D General electives*** |
| ICADBS412A | Build a database | 30 |
| **Total Hours** | **645** |

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| **Occupation /****Work Function** | Junior Games Designer |
| **Qualification Title**  | Certificate IV in Digital and Interactive Games |
| **Qualification Code** | ICA40911 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWHS304A | Participate effectively in WHS communication and consultation processes | 30 |
| ICAGAM401A | Produce an interactive game | 60 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT419A | Work effectively in the digital media industry | 30 |
| ***Electives*** |
| ***Group A Design*** |
| CUFPPM404A | Create storyboards | 40 |
| ***Group B Programming*** |
| ICAICT406A | Build a graphical user interface | 20 |
| ICAPRG301A | Apply introductory programming techniques | 40 |
| ICAPRG405A | Automate processes | 40 |
| ICAPRG406A | Apply introductory object-oriented language skills | 60 |
| ICAPRG413A | Use a library or pre-existing components | 40 |
| ***Group C Art*** |
| CUFANM302A | Create 3D digital animations | 75 |
| CUFANM303A | Create 3D digital models | 75 |
| ICADMT403A | Produce and edit digital images | 40 |
| ICAGAM301A | Apply simple modelling techniques | 50 |
| ICAGAM302A | Design and apply simple textures to digital art | 50 |
| ICAGAM418A | Use simple modelling for animation | 40 |
| **Total Hours** | **730** |

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| **Occupation /****Work Function** | HelpDesk Support Officer |
| **Qualification Title**  | Certificate IV in Computer Systems Technology |
| **Qualification Code** | ICA41011 |
| **Description** | Appropriate for a person with a broad range of skills in installing, testing and fault finding in computer networks and computing equipment. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWHS304A | Participate effectively in WHS communication and consultation processes | 30 |
| BSBSUS301A | Implement and monitor environmentally sustainable work practices | 40 |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT421A | Connect, maintain and configure hardware components | 40 |
| ICANWK404A | Install, operate and troubleshoot a small enterprise branch network | 60 |
| ICANWK405A | Build a small wireless local area network | 20 |
| ICAPRG414A | Apply introductory programming skills in another language | 60 |
| ICASAS425A | Configure and troubleshoot operating system software | 40 |
| ICASAS426A | Locate and troubleshoot IT equipment, system and software faults | 40 |
| ICAWEB411A | Produce basic client-side script for dynamic web pages | 40 |
| ICTTEN4199A | Install, configure and test a router | 60 |
| ***Electives*** |
| ICAPRG406A | Apply introductory object-oriented language skills | 60 |
| ICAICT405A | Develop detailed technical design | 60 |
| ICANWK401A | Install and manage a server | 40 |
| ICANWK402A | Install and configure virtual machines for sustainable ICT | 50 |
| ICAPMG401A | Support small scale IT projects | 60 |
| ***Electives from other endorsed training packages*** |
| UEENEEE003B\* | Solve problems in extra-low voltage single path circuits | 40 |
| UEENEEE004B\* | Solve problems in multiple path d.c. circuits | 40 |
| UEENEEE019C | Solve problems in multiple path a.c. circuits | 40 |
| **Total Hours** | **900** |

\*UEENEEE003B is a pre-requisite to UEENEEE004B which is a pre-requisite to UEENEEE019C

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| **Occupation /****Work Function** | Software developer, web developer, network analyst, analyst/programmer, network system administrator and general IT systems support |
| **Qualification Title**  | Diploma of Information Technology |
| **Qualification Code** | ICA50111 |
| **Notes** | This qualification provides the skills and knowledge for an individual to administer and manage information and communications technology (ICT) support in small-to-medium enterprises (SMEs) using a wide range of general ICT technologies |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWHS501A | Ensure a safe workplace | 60 |
| BSBSUS501A | Develop workplace policy and procedures for sustainability | 50 |
| ICAICT509A | Gather data to identify business requirements | 30 |
| ICAICT511A | Match IT needs with the strategic direction of the enterprise | 50 |
| ***Group A Networking*** |
| ICANWK507A | Install, operate and troubleshoot medium enterprise routers | 120 |
| ICANWK508A | Install, operate and troubleshoot medium enterprise switches | 90 |
| ICANWK509A | Design and implement a security perimeter for ICT networks | 60 |
| ICANWK511A | Manage network security | 80 |
| ICANWK531A | Configure an internet gateway | 40 |
| ***Group B Programming*** |
| ICAPRG503A | Debug and monitor applications | 40 |
| ICAPRG523A | Apply advanced programming skills in another language | 80 |
| ICAPRG524A | Develop high-level object-oriented class specifications | 60 |
| ICAPRG527A | Apply intermediate object-oriented language skills | 60 |
| ICASAD502A | Model data processes | 30 |
| ***Group C IT support*** |
| ICAICT510A | Determine appropriate IT strategies and solutions | 40 |
| ***Group D Web design and development*** |
| ICAWEB501A | Build a dynamic website | 60 |
| ICAWEB502A | Create dynamic web pages | 40 |
| ICAWEB503A | Create web-based programs | 60 |
| ICAWEB507A | Customise a complex IT content management system | 80 |
| ICAWEB508A | Develop website information architecture | 30 |
| **Total Hours** | **1160** |

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| **Occupation /****Work Function** | Assistant Games Designer/Animator |
| **Qualification Title**  | Diploma of Digital and Interactive Games |
| **Qualification Code** | ICA50211 |
| **Description** | Assistant Graphic Media Developers take the creative plans developed by game designers and artists and 2D and 3D skills the programs necessary to render the games programs. Games Programmers will take the work of Graphic Media Developers to integrate their work into the game stages and then run tests to see how games work, making corrections as needed. |
| **Notes** | \* This selection of units focuses solely on art development for games development. There is NO consideration for programming in this selection. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBOHS402B | Contribute to the implementation of the OHS consultation process | 40 |
| ICAGAM501A | Create design concepts for digital games and 3-D media | 30 |
| ICAGAM503A | Create a complex 3-D interactive computer game | 60 |
| ICAGAM523A | Collaborate in the design of 3-D game levels and environments | 40 |
| ICAICT419A | Work effectively in the digital media industry | 30 |
| ***Electives*** |
| ***Group B Art*** |
| ICAGAM512A | Create and implement designs for a 3-D games environment | 50 |
| ICAGAM514A | Design and create models for a 3-D and digital effects environment | 50 |
| ICAGAM515A | Design and create advanced particles, fluids and bodies for 3-D digital effects | 50 |
| ICAGAM516A | Animate a 3-D character for digital games | 40 |
| ICAGAM517A | Produce a digital animation sequence | 60 |
| ICAGAM518A | Animate physical attributes of models and elements | 30 |
| ICAGAM519A | Manage technical art and rigging in 3-D animation | 50 |
| ICAGAM520A | Create and combine 3-D digital games and components | 30 |
| ICAGAM526A | Create complex 3-D characters for games | 60 |
| ***Group C Digital media*** |
| ICAGAM521A | Create interactive 3-D environments for digital games | 30 |
| ICAGAM525A | Apply digital texturing for the 3-D environment in digital games | 30 |
| **Total Hours** | **680** |

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| **Occupation /****Work Function** | Systems Administrator |
| **Qualification Title**  | Diploma of Information Technology Systems Administration |
| **Qualification Code** | ICA50311 |
| **Description** | Appropriate for a person administering a variety of networked computer systems. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBSUS501A | Develop workplace policy and procedures for sustainability | 50 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT509A | Gather data to identify business requirements | 30 |
| ICANWK513A | Manage system security | 50 |
| ICASAS406A | Implement and hand over system components | 20 |
| ICASAS502A | Establish and maintain client user liaison | 20 |
| ICASAS505A | Review and update disaster recovery and contingency plans | 30 |
| ICASAS512A | Review and manage delivery of maintenance services | 20 |
| ICASAS515A | Manage the testing process | 20 |
| ICTTEN5204A | Produce technical solutions from business specifications | 50 |
| ***Electives from list*** |
| ICAICT501A | Research and review hardware technology options for organisations | 20 |
| ICAICT511A | Match IT needs with the strategic direction of the enterprise | 50 |
| ICANWK535A | Install an enterprise virtual computing environment | 60 |
| ICANWK527B | Manage an enterprise virtual computing environment | 60 |
| ICASAS517A | Use network tools | 50 |
| ***Electives from elsewhere in ICA11*** |
| ICASAS518A | Install and upgrade operating systems | 50 |
| ICAPMG501A | Manage IT projects | 80 |
| ICANWK529A | Install and manage complex ICT networks | 100 |
| ICANWK505A | Design, build and test a network server | 50 |
| **Total Hours** | **870** |

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| **Occupation /****Work Function** | Network Support Technician |
| **Qualification Title**  | Diploma of Information Technology Networking |
| **Qualification Code** | ICA50411 |
| **Description** | Network administrators provide operational support for and management of computer networks to ensure they run efficiently. The IT networks can range from internet and private networks to large communications networks. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT511A | Match IT needs with the strategic direction of the enterprise | 50 |
| ICANWK529A | Install and manage complex ICT networks | 100 |
| ICTSUS5187A | Implement server virtualisation for a sustainable ICT system | 80 |
| ICTTEN6206A | Produce an ICT network architecture design | 60 |
| ***Electives*** |
| ICANWK503A | Install and maintain valid authentication processes | 25 |
| ICANWK506A | Configure, verify and troubleshoot WAN links and IP services in a medium enterprise network | 90 |
| ICANWK507A | Install, operate and troubleshoot medium enterprise routers | 120 |
| ICANWK508A | Install, operate and troubleshoot medium enterprise switches | 90 |
| ICANWK509A | Design and implement a security perimeter for ICT networks | 60 |
| ICANWK510A | Develop, implement and evaluate system and application security | 60 |
| ICTTEN5201A | Install, configure and test a server | 60 |
| ICANWK511A | Manage network security | 80 |
| ICAPMG501A | Manage IT projects | 80 |
| ICTTEN5204A | Produce technical solutions from business specifications | 50 |
| ICTTEN4213A | Configure and troubleshoot advanced network switching | 80 |
| **Total Hours** | **1125** |

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| **Occupation /****Work Function** | Database administrator / Database developer |
| **Qualification Title**  | Diploma of Database Design and Development |
| **Qualification Code** | ICA50511 |
| **Description** | Database administrators design, implement, maintain and repair an organisation’s database. The role includes developing and designing the database strategy, monitoring and improving database performance and capacity, and planning for future expansion requirements. They may also plan, co-ordinate and implement security measures to safeguard the database. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICADBS502A | Design a database | 50 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT502A | Develop detailed component specifications from project specifications | 40 |
| ICANWK514A | Model preferred system solutions | 30 |
| ICAPRG425A | Use structured query language | 60 |
| ICAPRG509A | Build using rapid application development | 40 |
| ICASAD501A | Model data objects | 30 |
| ICASAD502A | Model data processes | 30 |
| ICTSUS6233A | Integrate sustainability in ICT planning and design projects | 55 |
| ***Electives*** |
| ICAPRG501A | Apply advanced object-oriented language skills | 80 |
| ICAPRG523A | Apply advanced programming skills in another language | 80 |
| ICAWEB502A | Create dynamic web pages | 40 |
| ICASAS505A | Review and update disaster recovery and contingency plans | 30 |
| ICASAS502A | Establish and maintain client user liaison | 20 |
| ICTTEN5204A | Produce technical solutions from business specifications | 50 |
| ICAPRG507A | Implement security for applications | 50 |
| ICADBS504A | Integrate database with a website | 25 |
| ***Electives from elsewhere in ICA11*** |
| ICAPRG418A | Apply intermediate programming skills in another language | 80 |
| ICAPRG527A | Apply intermediate object-oriented language skills | 60 |
| ICAPRG529A | Apply testing techniques for software development | 40 |
| **Total Hours** | **930** |

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| **Occupation /****Work Function** | Web Developer/Programmer |
| **Qualification Title**  | Diploma of Website Development |
| **Qualification Code** | ICA50611 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBOHS509A | Ensure a safe workplace | 60 |
| ICADBS504A | Integrate database with a website | 25 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT515A | Verify client business requirements | 40 |
| ICAWEB501A | Build a dynamic website | 60 |
| ICAWEB502A | Create dynamic web pages | 40 |
| ICAWEB503A | Create web-based programs | 60 |
| ICAWEB516A | Research and apply emerging web technology trends | 80 |
| ***Electives*** |
| ICAPRG418A | Apply intermediate programming skills in another language | 80 |
| ICAWEB505A | Develop complex web page layouts | 40 |
| ICAWEB506A | Develop complex cascading style sheets | 40 |
| ICAWEB508A | Develop website information architecture | 30 |
| ICAWEB504A | Build a document using eXtensible markup language | 30 |
| ICADBS412A | Build a database | 30 |
| ICADBS502A | Design a database | 50 |
| ICAPRG425A | Use structured query language | 60 |
| ICAPRG501A | Apply advanced object-oriented language skills | 80 |
| ICAPRG523A | Apply advanced programming skills in another language | 80 |
| ICAPRG413A | Use a library or pre-existing components | 40 |
| ICAPRG527A | Apply intermediate object-oriented language skills | 60 |
| **Total Hours** | **1025** |

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| **Occupation /****Work Function** | Software Developer / Programmer |
| **Qualification Title**  | Diploma of Software Development |
| **Qualification Code** | ICA50711 |
| **Description** | A software developer designs codes and implements computer solutions for individuals and companies. A software developer may be responsible for ensuring software created meets client requirements, as well as modifying or maintaining existing software. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAPRG418A | Apply intermediate programming skills in another language | 80 |
| ICAPRG501A | Apply advanced object-oriented language skills | 80 |
| ICAPRG502A | Manage a project using software management tools | 60 |
| ICAPRG503A | Debug and monitor applications | 40 |
| ICAPRG504A | Deploy an application to a production environment | 40 |
| ICAPRG520A | Validate an application design against specifications | 40 |
| ICAPRG523A | Apply advanced programming skills in another language | 80 |
| ICAPRG527A | Apply intermediate object-oriented language skills | 60 |
| ICAPRG529A | Apply testing techniques for software development | 40 |
| ***Electives*** |
| ICAPRG505A | Build advanced user interface | 60 |
| ICAICT509A | Gather data to identify business requirements | 30 |
| ICAPRG509A | Build using rapid application development | 40 |
| ICAPRG601A | Develop advanced mobile multi-touch applications | 80 |
| ICAPRG514A | Prepare for software development using rapid application development | 30 |
| ICANWK514A | Model preferred system solutions | 30 |
| **Total Hours** | **830** |

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| **Occupation /****Work Function** | System Analyst |
| **Qualification Title**  | Diploma of Systems Analysis and Design |
| **Qualification Code** | ICA50811 |
| **Description** | This qualification provides the skills to determine client business requirements to support a project team in the analysis and design of a system to meet the client/s needs. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICADBS502A | Design a database | 50 |
| ICAICT401A | Determine and confirm client business requirements | 40 |
| ICAICT403A | Apply software development methodologies | 20 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT502A | Develop detailed component specifications from project specifications | 40 |
| ICAICT509A | Gather data to identify business requirements | 30 |
| ICAICT511A | Match IT needs with the strategic direction of the enterprise | 50 |
| ICTSUS6233A | Integrate sustainability in ICT planning and design projects | 55 |
| ICTTEN5204A | Produce technical solutions from business specifications | 50 |
| ***Electives*** |
| ICAICT512A | Plan process re-engineering strategies for business | 30 |
| ICANWK514A | Model preferred system solutions | 30 |
| ICAPRG515A | Review developed software | 30 |
| ICAPRG524A | Develop high-level object-oriented class specifications | 60 |
| ICASAD501A | Model data objects | 30 |
| ICASAD502A | Model data processes | 30 |
| ICASAS505A | Review and update disaster recovery and contingency plans | 30 |
| ICASAS507A | Implement and evaluate systems for regulatory and standards compliance | 20 |
| ICAICT510A | Determine appropriate IT strategies and solutions | 40 |
| ICASAS502A | Establish and maintain client user liaison | 20 |
| ICAICT514A | Identify and manage the implementation of current industry-specific technologies | 60 |
| ICAPMG501A | Manage IT projects | 80 |
| **Total Hours** | **835** |

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| **Occupation /****Work Function** | Media Developer |
| **Qualification Title**  | Diploma of Digital Media Technologies |
| **Qualification Code** | ICA50911 |
| **Description** | Appropriate for a person involved with the design, development and management of website and media projects, including the design and development of games, interactive media productions and interactive websites. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBCRT501A | Originate and develop concepts | 30 |
| BSBWHS501A | Ensure a safe workplace | 60 |
| ICAGAM504A | Manage interactive media production | 40 |
| ICAICT418A | Contribute to copyright, ethics and privacy in an IT environment | 40 |
| ICAICT419A | Work effectively in the digital media industry | 30 |
| ICAICT515A | Verify client business requirements | 40 |
| ICAPMG501A | Manage IT projects | 80 |
| ***Electives*** |
| CUFDIG502A | Design web environments | 50 |
| ICADBS504A | Integrate database with a website | 25 |
| ICADMT501A | Incorporate and edit digital video | 50 |
| ICAPRG425A | Use structured query language | 60 |
| ICASAS504A | Develop and conduct client acceptance test | 20 |
| ICAWEB501A | Build a dynamic website | 60 |
| ICAWEB516A | Research and apply emerging web technology trends | 80 |
| CUFDIG404A | Apply scripting language in authoring | 60 |
| CUFDIG504A | Design games | 30 |
| CUFDIG505A | Design information architecture | 70 |
| CUFPOS401A | Edit screen content for fast turnaround | 30 |
| **Total Hours** | **855** |

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| **Occupation /****Work Function** | Software Development Manager |
| **Qualification Title**  | Advanced Diploma of Information Technology |
| **Qualification Code** | ICA60111 |
| **Description** | Appropriate for a person involved with the design, development and management of computer software application development, including planning, quality control, development and testing. It involves a high degree of autonomy and may include some supervision of others. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| BSBWOR502B | Ensure team effectiveness | 60 |
| ICAICT608A | Interact with clients on a business level | 40 |
| ICAICT610A | Manage copyright, ethics and privacy in an IT environment | 30 |
| ICAPMG609A | Plan and direct complex IT projects | 80 |
| ICTSUS6233A | Integrate sustainability in ICT planning and design projects | 55 |
| **Group A Knowledge management** |
| ICADBS501A | Monitor and improve knowledge management system | 20 |
| ICADBS601B | Build a data warehouse | 80 |
| ICADBS602A | Develop a knowledge management strategy | 80 |
| ICAICT604A | Identify and implement business innovation | 60 |
| ICAICT605A | Implement a knowledge management strategy | 30 |
| **Group C General Electives** |
| ICAPMG606A | Manage IT project quality | 40 |
| ICAPRG601A | Develop advanced mobile multi-touch applications | 80 |
| ICAPRG602A | Manage the development of technical solutions from business specifications | 40 |
| ICAICT603A | Manage the use of appropriate development methodologies | 30 |
| ICAICT609A | Lead the evaluation and implementation of current industry-specific technologies | 80 |
| ICAICT606A | Develop communities of practice | 30 |
| **Total Hours** | **835** |

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| **Occupation /****Work Function** | IT Security Specialist |
| **Qualification Title**  | Advanced Diploma of Network Security |
| **Qualification Code** | ICA60211 |
| **Description** | Protecting the IT infrastructure from external threats is now a high priority for every organisation. Graduates of this course master critical skills to identify computer and network security risks, then plan and implement counter measures to keep systems safe |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICANWK502A | Implement secure encryption technologies | 20 |
| ICANWK509A | Design and implement a security perimeter for ICT networks | 60 |
| ICANWK601A | Design and implement a security system | 90 |
| ICANWK602A | Plan, configure and test advanced server based security | 80 |
| ICTSUS6233A | Integrate sustainability in ICT planning and design projects | 55 |
| ***Electives*** |
| ICANWK603A | Plan, configure and test advanced internetwork routing solutions | 120 |
| ICANWK604A | Plan and configure advanced internetwork switching solutions | 120 |
| ICANWK612A | Plan and manage troubleshooting advanced integrated IP networks | 120 |
| ICANWK503A | Install and maintain valid authentication processes | 25 |
| ICANWK509A | Design and implement a security perimeter for ICT networks | 60 |
| CPPSEC5004A | Prepare security risk management plan | 40 |
| CPPSEC5005A | Implement security risk management plan | 40 |
| **Total Hours** | **830** |

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| **Occupation /****Work Function** | Business System Analyst |
| **Qualification Title**  | Advanced Diploma of Information Technology Business Analysis |
| **Qualification Code** | ICA60311 |
| **Description** | This qualification provides the skills to be competent in business analysis in an information and communication technology (ICT) environment to analyse, identify and coordinate relevant ICT business solutions.  |   |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICAICT608A | Interact with clients on a business level | 40 |
| ICAICT610A | Manage copyright, ethics and privacy in an IT environment | 30 |
| ICAPMG609A | Plan and direct complex IT projects | 80 |
| ICASAD601A | Perform IT-focused enterprise analysis | 40 |
| ICASAD603A | Plan and monitor business analysis activities in an IT environment | 40 |
| ICASAD604A | Manage and communicate IT solutions | 40 |
| ICASAD605A | Elicit IT requirements | 40 |
| ICASAD606A | Analyse stakeholder requirements | 40 |
| ICASAD607A | Manage assessment and validation of IT solutions | 40 |
| ***Electives*** |
| ICAPRG602A | Manage the development of technical solutions from business specifications | 40 |
| ICAICT601A | Develop IT strategic and action plans | 30 |
| ICAICT604A | Identify and implement business innovation | 60 |
| ICAPMG603A | Manage IT project planning | 40 |
| ICAPMG606A | Manage IT project quality | 40 |
| ICAICT609A | Lead the evaluation and implementation of current industry-specific technologies | 80 |
| **Total Hours** | **680** |

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| **Occupation /****Work Function** | ICT Project Manager |
| **Qualification Title**  | Advanced Diploma of Information Technology Project Management |
| **Qualification Code** | ICA60411 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICAICT610A | Manage copyright, ethics and privacy in an IT environment | 30 |
| ICAPMG601A | Establish IT project governance | 40 |
| ICAPMG602A | Manage IT project initiation | 40 |
| ICAPMG603A | Manage IT project planning | 40 |
| ICAPMG604A | Manage IT project delivery | 40 |
| ICAPMG605A | Manage IT project closure | 40 |
| ***Electives from list*** |
| BSBINN601B | Manage organisational change | 60 |
| ICAICT608A | Interact with clients on a business level | 40 |
| ICAICT609A | Lead the evaluation and implementation of current industry-specific technologies | 80 |
| ICAICT713A | Manage IT services | 80 |
| ICAPMG606A | Manage IT project quality | 40 |
| ICASAS505A | Review and update disaster recovery and contingency plans | 30 |
| ***Electives from elsewhere in ICA11*** |
| ICAPMG609A | Plan and direct complex IT projects | 80 |
| ICASAD604A | Manage and communicate IT solutions | 40 |
| ICASAD607A | Manage assessment and validation of IT solutions | 40 |
| **Total Hours** | **720** |

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| **Occupation /****Work Function** | Enterprise systems administrator |
| **Qualification Title**  | Advanced Diploma of Computer Systems Technology |
| **Qualification Code** | ICA60511 |
| **Description** | This sample program contains units relevant to enterprise network systems administration, including Cisco and Microsoft industry certifications and enterprise web systems programming, |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICANWK506A | Configure, verify and troubleshoot WAN links and IP services in a medium enterprise network | 90 |
| ICANWK507A | Install, operate and troubleshoot medium enterprise routers | 120 |
| ICANWK508A | Install, operate and troubleshoot medium enterprise switches | 90 |
| ICANWK509A | Design and implement a security perimeter for ICT networks | 60 |
| ICANWK529A | Install and manage complex ICT networks | 100 |
| ICANWK602A | Plan, configure and test advanced server based security | 80 |
| ICANWK607A | Design and implement wireless network security | 60 |
| ICAPMG608A | Manage IT project systems implementation | 40 |
| ICAPMG609A | Plan and direct complex IT projects | 80 |
| ICAPRG527A | Apply intermediate object-oriented language skills | 60 |
| ICAWEB501A | Build a dynamic website | 60 |
| ICAWEB502A | Create dynamic web pages | 40 |
| ***Electives from list*** |
| ICANWK505A | Design, build and test a network server | 50 |
| ICANWK525B | Configure an enterprise virtual computing environment | 60 |
| ICADBS504A | Integrate database with a website | 25 |
| ICAWEB503A | Create web-based programs | 60 |
| ICANWK605A | Design and configure secure integrated wireless systems | 40 |
| ICANWK610A | Design and build integrated VoIP networks | 50 |
| **Total Hours** | **1165** |

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| **Occupation /****Work Function** |  Information Systems Manager |
| **Qualification Title**  | Vocational Graduate Certificate in Information Technology and Strategic Management |
| **Qualification Code** | ICA70111 |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICAICT709A | Facilitate business analysis | 80 |
| ***Electives*** |
| ICAICT702A | Direct ICT services | 80 |
| ICAICT701A | Lead research into identifying new marketplace opportunities | 80 |
| ICASUS701A | Plan and manage virtualisation for IT sustainability | 80 |
| **Total Hours** | **320** |

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| **Occupation /****Work Function** | IT Sustainability Technology Specialist |
| **Qualification Title**  | Vocational Graduate Certificate in Information Technology Sustainability |
| **Qualification Code** | ICA70211 |
| **Description** | Key roles for this occupation will be assessing business carbon usage and identifying strategies and methods to reduce carbon usage. |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** |
| ICASUS702A | Conduct a business case study for integrating sustainability in IT planning and design projects | 80 |
| ***Electives*** |
| ICAICT707A | Direct research and business response to new ICT technology | 80 |
| ICASUS701A | Plan and manage virtualisation for IT sustainability | 80 |
| ICTSUS8238A | Conduct and manage a life cycle assessment for sustainability | 60 |
| **Total Hours** | **300** |

CONTACTS AND LINKS

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| **Industry Skills Council (ISC)** |
| Innovation and Business Skills Australia (IBSA) | This ISC is responsible for developing this **ICA11 Information and Communications Training Package** and can be contacted for further information. You can also source copies of the Training Package and support material. | Address: Level 11, 176 Wellington Parade, East Melbourne, VIC, 3002Phone/fax: 03 9815 7000Email: <http://www.ibsa.org.au/contact-us.aspx>Web: <http://www.ibsa.org.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 Education, Employment and Workplace Relations (DEEWR) | DEEWR provides a range of services and resources to assist in delivery of Training Packages. Search the DEEWR website for links to a range of relevant resources and publications. | www.deewr.gov.au |
| **State Government** |
| Department of Education and Early Childhood DevelopmentHigher 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)** |
| Business Industries | The CMM service is provided by Executive Officers located within Victorian TAFE institutes on behalf of Higher Education Skills Group. | Alan DanielAddress: Chisholm Institute P O Box 684 Dandenong VIC 3175Phone/fax: 03 9238 8501/9238 8504Email: Alan.Daniel@chisholm.edu.au Web: <http://trainingsupport.vic.gov.au/>  |

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| **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 |
| **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. |