



The Australian Computer Society is the gazetted authority within Australia to undertake the process of assessing qualifications and experience to support skilled migration. The Department for Immigration & Citizenship determines the migration processes and through Skills Australia, the information and communications technology (ICT) occupations that are current to support the Australian economy. To meet the requirements for a skills assessment in an occupation code, applicants must have relevant qualifications and/or experience in the relevant field.

These occupations are contained in a skilled occupation list, or SOL. Information on the current occupations available to be nominated follows. This information should be used to consider eligibility to apply under a specific occupation code.

Current skills assessment guidelines available from the ACS website at www.acs.org.au/assessment provide information on the process of making an application. Skills applications are considered through analysis of qualifications and experience that are deemed relevant to the nominated occupation code. Full information on immigration requirements is available on the website of the Australian Department for Immigration & Citizenship: www.immi.gov.au.

The Department of Immigration and Citizenship has information on each occupation and the requirements for migration on their [*Australian Skills Recognition Information \(ASRI\) page*](#).

This is not a compulsory set of requirements for a skill assessment, rather the attributes of someone developing their career in the occupation.

For general skilled migrants (those coming independently):

The current skilled occupation list (SOL: schedule 3) – applies to all new GSM applications, including applicants eligible for transitional arrangements if they prefer to use it.

261111 ICT BUSINESS ANALYST

261112 SYSTEMS ANALYST

261311 ANALYST PROGRAMMER

261312 DEVELOPER PROGRAMMER

261313 SOFTWARE ENGINEER

For those applicants who are applying to state/regional migration plans or sponsorship arrangements, the following codes are assessed by ACS. In all cases, eligibility to apply for these codes depends on visa category and circumstances should be confirmed by the Department for Immigration & Citizenship or state authority before an assessment takes place if required. This list includes the 5 occupation codes from the GSM list above:

135111 Chief Information Officer

261111 ICT Business Analyst

261112 Systems Analyst

261311 Analyst Programmer

261312 Developer Programmer

261313 Software Engineer

261314 Software Tester

261399 Software & Applications Programmer NEC

262111 Database Administrator

262112 ICT Security Specialist

263113 Network Analyst

263111 Computer Network and Systems Engineer

263112 Network Administrator

263213 ICT Systems Test Engineer

262113 Systems Administrator

Identifies and communicates with users to formulate and produce a requirements specification to create system and software solutions. Business analysts assess business and information needs of an organisation. They co-ordinate the design of new IT solutions to improve business efficiency and productivity.

They identify and communicate with users to formulate and produce a requirements specification to create system and software solutions.

Tasks Include:

- working with users to formulate and document business requirements
- identifying, investigating, and analysing business processes, procedures and work practices
- identifying and evaluating inefficiencies and recommending optimal business practices, and system functionality and behaviour
- using project management methodologies, principles and techniques to develop project plans and to cost, resource and manage projects
- taking responsibility for deploying functional solutions, such as creating, adopting and implementing system test plans, which ensure acceptable quality and integrity of the system
- creating user and training documentation, and conducting formal training classes
- developing functional specifications for use by system developers
- using data and process modelling techniques to create clear system specifications for the design and development of system software
- acting as a central reference and information source, providing guidance and assistance in the system project decision making process

Example of units undertaken in higher education qualifications:

Business System Planning, Business Process Reengineering, Object Oriented Design and Development, Data Base Modelling, eCommerce, Business Intelligence, Knowledge Management, Quality Management, IS Project Management.

Example knowledge and technical requirements:

Strategic planning

Knowledge management

Audit techniques

Professional qualifications we might expect in the career:

ACS Certified Technologist; ACS Certified Professional

Capabilities that we might expect in this role:

Requirements definition and management

Stakeholder relationship management

Business analysis

Business process improvement

Business process testing

Change implementation planning and management

Business modelling

Organisation design and implementation

Data analysis

Requirements definition and management

Usability requirements analysis

Usability evaluation

Evaluates processes and methods used in existing ICT systems, proposes modifications, additional system components or new systems to meet user needs as expressed in specifications and other documentation.

Tasks Include:

- working with users to formulate and document business requirements
- identifying, investigating, and analysing business processes, procedures and work practices
- identifying and evaluating inefficiencies and recommending optimal business practices, and system functionality and behaviour
- using project management methodologies, principles and techniques to develop project plans and to cost, resource and manage projects
- taking responsibility for deploying functional solutions, such as creating, adopting and implementing system test plans, which ensure acceptable quality and integrity of the system
- creating user and training documentation, and conducting formal training classes
- developing functional specifications for use by system developers
- using data and process modelling techniques to create clear system specifications for the design and development of system software
- acting as a central reference and information source, providing guidance and assistance in the system project decision making process

Example of units undertaken in higher education qualifications:

Process Modelling, System Testing, Systems Analysis and Design, Data Base Design and Implementation, eCommerce Technology, ICT Project, Data Mining, Project Management, Object Oriented Systems Analysis and Design, Requirements Analysis, Knowledge Management, ERP, Systems Architecture, Enterprise Systems.

Example knowledge and technical requirements:

SQL

Visual Basic, C++ and Java

Unified Modelling Language (UML)

SAP business software applications

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Microsoft Certified Application Developer (MCSD)

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Systems design

Database/repository designs

Solutions architecture

Consultancy

Analyses user needs, produces requirements documentation and system plans, and encodes, tests, debugs, maintains and documents programs and applications, Web Design.

Tasks Include:

- researching, consulting, analysing and evaluating system program needs
- identifying technology limitations and deficiencies in existing systems and associated processes, procedures and methods
- testing, debugging, diagnosing and correcting errors and faults in an applications programming language within established testing protocols, guidelines and quality standards to ensure programs and applications perform to specification
- writing and maintaining program code to meet system requirements, system designs and technical specifications in accordance with quality accredited standards
- writing, updating and maintaining technical program, end user documentation and operational procedures
- providing advice, guidance and expertise in developing proposals and strategies for software design activities such as financial evaluation and costing for recommending software purchases and upgrades

Example of units undertaken in higher education qualifications:

System Analysis and Design, Program Design and Development, Program Testing, Data Base Management Systems, eCommerce Development, Programming.

Example knowledge and technical requirements:

Variety of operating systems environments such as Operating System: Windows, DOS, Linux, UNIX.

Programming such as C++ and Java

Database systems SQL, Access, ORACLE

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Microsoft Certified Professional Developer

Microsoft Certified IT Professional

Certified Information Systems Auditor or Certified Information Security Manager from Information Systems Audit and Control Association

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Programming/software development

Systems integration

Applications support

System design

Software development process improvement

Requirements definition and management

IT operations

Testing

Interprets specifications, technical designs and flow charts, builds, maintains and modifies the code for software applications, constructs technical specifications from a business functional model, and tests and writes technical documentation.

Tasks Include:

- researching, consulting, analysing and evaluating system program needs
- identifying technology limitations and deficiencies in existing systems and associated processes, procedures and methods
- testing, debugging, diagnosing and correcting errors and faults in an applications programming language within established testing protocols, guidelines and quality standards to ensure programs and applications perform to specification
- writing and maintaining program code to meet system requirements, system designs and technical specifications in accordance with quality accredited standards
- writing, updating and maintaining technical program, end user documentation and operational procedures
- providing advice, guidance and expertise in developing proposals and strategies for software design activities such as financial evaluation and costings for recommending software purchases and upgrades

Example of units undertaken in higher education qualifications:

Analysis and Design of Algorithms, Programming, Systems Design, Data Base Design, Software Development Tools, Web Page Development, Games Design, Games Programming.

Example knowledge and technical requirements:

Java, C++, Smalltalk and Visual Basic
Oracle, UML (Unified Modelling Language), Linux and Delphi
.NET frameworks (such as C# (C-sharp), ASP and VB

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Microsoft Certified Professional Developer (MCPD)

Professional qualifications we might expect in the career:

ACS Certified Technologist
ACS Certified Professional

Capabilities that we might expect in this role:

Systems development management
Software development process improvement
Program management
Stakeholder relationship management
Quality assurance
Release management
Change management
Quality standards
Programming/software development
Testing
Systems Integration

Designs, develops, modifies, documents, tests, implements, installs and supports software applications and systems.

Tasks Include:

- researching, consulting, analysing and evaluating system program needs
- identifying technology limitations and deficiencies in existing systems and associated processes, procedures and methods
- testing, debugging, diagnosing and correcting errors and faults in an applications programming language within established testing protocols, guidelines and quality standards to ensure programs and applications perform to specification
- writing and maintaining program code to meet system requirements, system designs and technical specifications in accordance with quality accredited standards
- writing, updating and maintaining technical program, end user documentation and operational procedures
- providing advice, guidance and expertise in developing proposals and strategies for software design activities such as financial evaluation and costing for recommending software purchases and upgrades

Example of units undertaken in higher education qualifications:

Programming Languages, Software Engineering, Operating Systems, Programming, System Software, Systems Programming, Compiler Theory.

Example knowledge and technical requirements:

Databases: MySQL, Oracle, Access, SAP

Software: Microsoft SQL Server, DB Artisan, Eclipse, Visual Studio.NET, FrontPage

Languages: C#, Java, Visual Basic, ASP, XML, XSL, JWS, SQL, and T-SQL

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Microsoft Certified Solution Developer

Certified Lotus Professional or Certified Novell Engineer

Oracle Certified Master

Microsoft Certified Database Administrator (MCSD)

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Programming/software development

Software development process improvement

Application Support

Configuration Management

Database design

System design

Data analysis

Software integration

Systems testing

Usability evaluation

Content creation

Plans, organises, directs, controls and coordinates the ICT strategies, plans and operations of an organisation to ensure the ICT infrastructure supports the organisation's overall operations and priorities. The Chief Information Officer (CIO) is the head of the IT group within an organisation, and usually reports to the Chief Executive Officer (CEO). They provide organisations with the vision to master information technology as a competitive tool.

Tasks Include:

- analysing information needs and specifying technology to meet those needs
- formulating and directing information and communication technology (ICT) strategies, policies and plans
- directing the selection and installation of ICT resources and the provision of user training
- directing ICT operations and setting priorities between system developments, maintenance and operations
- overseeing the security of ICT systems

Example of units undertaken in higher education qualifications:

Usually tertiary education qualification in ICT and/or business related disciplines. CIO's would usually be educated to masters level or equivalent professional development programs in these disciplines.

Example knowledge and technical requirements:

A breadth technical and platform knowledge would be expected.

Vendor/vendor-neutral qualifications appropriate to this occupation:

There are no expected vendor qualifications, however, the CIO would be expected to have knowledge of major vendor systems and products and their business applications.

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Corporate governance of IT

Compliance Review

Enterprise architecture

Organisation design and implementation

Stakeholder relationship management

Business risk management

Information management

Supplier relationship management

Business process improvement

Information systems co-ordination

Requirements definition and management

Information policy formation

Specifies, develops and writes test plans and test scripts, produces test cases, carries out regression testing, and uses automated test software applications to test the behaviour, functionality and integrity of computer software, and documents the results of tests in defect reports and related documentation.

Example of units undertaken in higher education qualifications:

Programming Languages, Software Engineering, Operating Systems, Programming, Software architecture, Software validation, Software verification and quality assurance.

Example knowledge and technical requirements:

Developer experience and Knowledge of HTML/web technologies; test script writing ability.

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

There are a variety of professional certification testing : ISEB Foundation Certificate in Software Testing; STQB Certified Tester, Foundation Level (CTFL) and ISTQB Certified Tester, Advanced Level (CTAL) certifications; Certified Software Test Professional (CSTP) and Certified Test Manager (CTM).

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Testing

Software development process improvement

Programming/Software development

Configuration management

Usability requirements analysts

Safety assessment

This occupation group covers Software and Applications Programmers not elsewhere classified.

A programmer translates 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 a knowledge of a variety of programming languages.

Example of units undertaken in higher education qualifications:

Analysis and Design of Algorithms, Programming, Systems Design, Data Base Design, Software Development Tools, Web Page Development

Example knowledge and technical requirements:

Certification in a programming language such as C++ or Java
Variety of operating systems environments

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Microsoft Certified Professional Developer (MCPD)

Professional qualifications we might expect in the career:

ACS Certified Technologist
ACS Certified Professional

Capabilities that we might expect in this role:

Programming/Software development
Usability requirements analysts
Systems integration
Applications support
System design
Software development process improvement
Requirements definition and management
IT operations
Testing

Plans, develops, configures, maintains and supports an organisation's database management system in accordance with user requirements ensuring optimal database integrity, security, backup, reliability and performance. 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.

Example of units undertaken in education qualifications:

Database administration, Database development, Database integration, Database Operation, Data mining, Information Security.

Example knowledge and technical requirements:

Have a knowledge of relational database technology (eg, Oracle, Sybase, DB2, SQL Server, MS Access) and operating systems

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Microsoft Certified Database Administrator (MCDBA); Oracle Database Administration
Information System and Audit Control Association: Certified Information Systems Auditor (CISA) & Certified Information Security Manager (CISM)

Professional qualifications we might expect in the career:

ACS Certified Technologist; ACS Certified Professional

Capabilities that we might expect in this role:

Database administration
Database/repository design
Information security
Security administration

Establishes, manages and administers an organisation's ICT security policy and procedures to ensure preventive and recovery strategies are in place, and minimise the risk of internal and external security threats.

Security specialists co-ordinate and implement security measures to protect computer systems from unauthorised access. This is a critical role, which is responsible for protecting an organisation's information.

Example of units undertaken in higher education qualifications:

Information Security, Programming Languages, Web security, Network security, information systems security, E-Commerce(security), Computer and Internet Forensics, Cryptosystems.

Example knowledge and technical requirements:

Understanding of TCP/IP, ability to read code and ideally undertake basic programming, and familiarisation with penetration testing (otherwise known as ethical hacking)

A good understanding of networking, hardware and operating systems and the web is critical
Firewall management

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Certified Information System Security Professional (CISSP)

Information System and Audit Control Association: Certified Information Security Manager (CISM)

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Security administration

Data analysis

Network control and operations

Incident management

Compliance review

Safety assessment

Researches and analyses network architecture, and recommends policies and strategies for designing, planning and coordinating an organisation's network such as the total system environment and architecture. May also perform operational tasks such as monitoring system performance, software and hardware upgrades, backups, support and network maintenance.

Example of units undertaken in higher education qualifications:

Networking, Operating Systems, Systems analysis and design, Platform Technologies, System Administration, Network Applications, business management, enterprise architecture.

Example knowledge and technical requirements:

A good understanding of network operating systems, network equipment, networking protocols is important; skills with Cisco LAN/WAN/VOIP/WiFi.

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Microsoft Certified Systems Engineer, Cisco Certified Network Associate (CAN), Oracle (OCA) and Linux Professional (LPIC).

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Network planning

Network design

Requirements definition and management

Network control & operation

Emerging technology monitoring

Procurement

Change management

Consultancy

Plans, develops, deploys, tests and optimises network and system services, taking responsibility for configuration management and overall operational readiness of network systems, especially environments with multiple operating systems and configurations, and provides troubleshooting and fault-finding services for network problems.

Computer Network & Systems engineers are involved in the design, installation, repair and service of computers and associated equipment. Senior engineers are responsible for total system performance, which can require the use of project control techniques and the supervision of other staff. Senior engineers can be required to design the more complex hardware equipment required to operate systems.

Example of units undertaken in higher education qualifications:

Networking, Operating Systems, Voice/VoIP Administration, Network Security, Wireless and mobile technologies, Platform Technologies, System Administration, Network Applications, Network Penetration Testing.

Example knowledge and technical requirements:

Databases: MySQL, Oracle, Access, SAP

Software: Microsoft SQL Server, DB Artisan, Eclipse, Visual Studio.NET, FrontPage

Languages: C#, Java, Visual Basic, ASP, XML, XSL, JWS, SQL, and T-SQL

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Microsoft Certified Systems Engineer,

Microsoft Certified Solution Developer

Certified Lotus Professional or Certified Novell Engineer

Certified Directory Engineer from Novell

Master Certified Novell Engineer, Certified Novell Instructor

CITEC Certified Engineer or Oracle Certified Master

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Network planning

Network design

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.

Example of units undertaken in higher education qualifications:

Networking, Operating Systems, Voice/VoIP Administration, Network Security, Wireless and mobile technologies, Platform Technologies, System Administration, Network Applications, Network Penetration Testing.

Example knowledge and technical requirements:

A good understanding of network operating systems, network equipment, networking protocols is important; skills with Cisco LAN/WAN/VOIP/WiFi.

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Microsoft Certified Systems Engineer, Cisco Certified Network Associate (CAN), Cisco Certified Network Professional (CCNP) Oracle (OCA) and Linux Professional (LPIC).

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Network planning

Network design

Specifies, develops and writes test plans and test scripts, produces test cases, carries out regression testing, and uses automated test software applications to test the behaviour, functionality and integrity of systems, and documents the results of tests in defect reports and related documentation. They will also act as technical expert on the subject of testing processes and standards.

Example of units undertaken in higher education qualifications:

Programming Languages, Software Engineering, Operating Systems, Programming, Software architecture, Software validation, Software verification and quality assurance.

Example knowledge and technical requirements:

Developer experience and Knowledge of HTML/web technologies; test script writing ability.

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

There are a variety of professional certification testing : ISEB Foundation Certificate in Software Testing; STQB Certified Tester, Foundation Level (CTFL) and ISTQB Certified Tester, Advanced Level (CTAL) certifications; Certified Software Test Professional (CSTP)and Certified Test Manager (CTM).

Professional qualifications we might expect in the career:

ACS Certified Technologist

ACS Certified Professional

Capabilities that we might expect in this role:

Testing

Consultancy

Software development process improvement

Release management

Programming/software development

Methods and tools

Safety assessment

Plans, develops, installs, troubleshoots, maintains and supports an operating system and associated server hardware, software and databases ensuring optimum system integrity, security, backup and performance.

Example of units undertaken in higher education qualifications:

Operating systems, Quality management, Systems testing, Network Systems Administration, Network Configuration, Windows and Unix administration, Database Administration, Infrastructure Management, Web systems administration, Information security, Server/Web server administration and technology.

Example knowledge and technical requirements:

Variety of operating systems environments such as Operating System: Windows, DOS, Linux, UNIX.
Programming such as C++ and Java
Database systems SQL, Access, ORACLE

Vendor/vendor-neutral qualifications appropriate to this occupation:

(this is not an essential or exhaustive list: please refer to guidelines for eligibility)

Cisco Certified Network Associate (CAN), Cisco Certified Network Professional (CCNP)

Professional qualifications we might expect in the career:

ACS Certified Technologist
ACS Certified Professional

Capabilities that we might expect in this role:

Security administration
Information analysis
Problem management
Change management