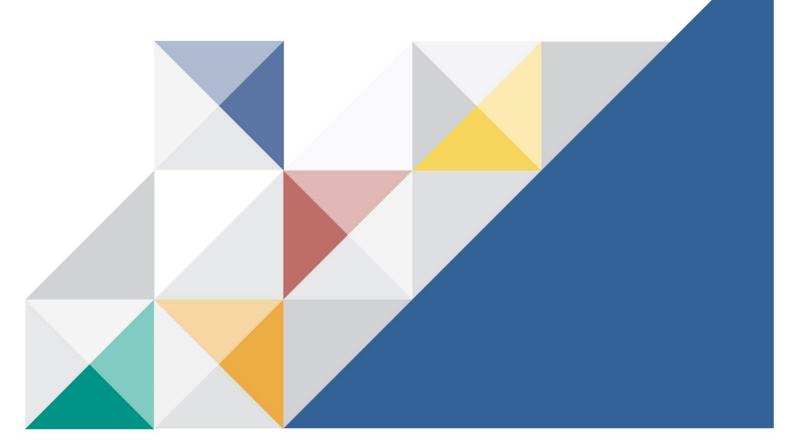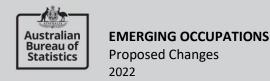# EMERGING OCCUPATIONS

Proposed Changes

2022

1399 OTHER SPECIALIST MANAGERS

This unit group covers Specialist Managers not elsewhere classified. It includes Arts Administrators or Managers, Environmental Managers, Laboratory Managers, Quality Assurance Managers ~~and~~, Sports Administrators and Regulatory Affairs Specialist.

Indicative Skill Level:

In Australia and New Zealand:

Most occupations in this unit group have a level of skill commensurate with a bachelor degree or higher qualification. At least five years of relevant experience may substitute for the formal qualification. In some instances relevant experience and/or on-the-job training may be required in addition to the formal qualification (ANZSCO Skill Level 1).

Occupations:

- 139911 Arts Administrator or Manager
- 139912 Environmental Manager
- 139913 Laboratory Manager
- 139914 Quality Assurance Manager
- 139915 Sports Administrator
- 139916 Regulatory Affairs Specialist
- 139999 Specialist Managers nec

139911 Arts Administrator or Manager

Plans, organises, directs, controls, coordinates and promotes artistic and cultural policies, programs, projects and services.

Skill Level: 1

Specialisations:

- Art Gallery Director
- Community Arts Centre Manager
- Cultural Centre Manager

139912 Environmental Manager

Plans, organises, directs, controls and coordinates the development and implementation of an environmental management system within an organisation by identifying, solving and alleviating environmental issues, such as pollution and waste treatment, in compliance with environmental legislation and to ensure corporate sustainable development.

Skill Level: 1

139913 Laboratory Manager

Plans, organises, directs, controls and coordinates the operations of a research or production laboratory.

Skill Level: 1

139914 Quality Assurance Manager

Alternative Title:

- Quality Facilitator

Plans, organises, directs, controls and coordinates the deployment of quality systems and certification processes within an organisation.

Skill Level: 1

139915 Sports Administrator

Plans, organises, directs, controls, coordinates and promotes sport and recreational activities, and develops related policies.

Skill Level: 1

139916 Regulatory Affairs Specialist

Delivers policy and develops regulatory strategies that accelerates access to new products and optimises the value of the existing product portfolio in healthcare, banking and energy Sectors.

Skill Level: 1

139999 Specialist Managers nec

This occupation group covers Specialist Managers not elsewhere classified.

Skill Level: 1

Occupations in this group include:

- Airport Manager
- Ambassador
- Ambulance Services Manager
- Archbishop
- Bishop
- Harbour Master
- Security Manager (Non-ICT)

2241 ACTUARIES, MATHEMATICIANS AND STATISTICIANS

Actuaries, Mathematicians and Statisticians develop and apply actuarial, mathematical, statistical and quantitative principles and techniques to solve problems in a range of fields such as business and finance, scientific and social research, and engineering. Econometricians are excluded from this unit group.

Econometricians are included in Unit Group 2243 Economists.
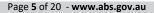
Indicative Skill Level:

In Australia and New Zealand:

Most occupations in this unit group have a level of skill commensurate with a bachelor degree or higher qualification. In some instances relevant experience and/or on-the-job training may be required in addition to the formal qualification (ANZSCO Skill Level 1).

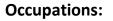Registration or licensing may be required.

Tasks Include:

- defining, analysing and solving complex financial and business problems relating to areas such as insurance premiums, annuities, superannuation funds, pensions and dividends
- examining financial projections for general insurance companies, finance companies, government and other organisations
- designing new types of policies, assessing risks and analysing investments in life insurance, superannuation funds, health insurance, friendly societies, financial markets and other areas
- formulating mathematical models to simulate processes
- applying models to experimental observations, and adjusting and recasting the models
- using numerical analysis methods to develop algorithms and perform computations
- liaising with management and clients to determine the subject or area to be surveyed or examined
- specifying the data to be collected, and the methodology to be used in collection and analysis
- evaluating and describing the reliability and utility of source information
- analysing and interpreting data, and producing relevant statistics to describe and infer particular trends and patterns
- generating information from data sets and identifying trends and patterns
- working with complex data sets to make business decisions

Occupations:

- 224111 Actuary
- 224112 Mathematician
- ~~224113 Statistician~~
- 224114 Data Analyst
- 224115 Data Scientist
- 224116 Statistician

224111 Actuary

Analyses mathematical, statistical, demographic, financial or economic data to predict and assess the long-term risk involved in financial decisions and planning. Registration or licensing is required.

Skill Level: 1

224112 Mathematician

Develops and applies mathematical principles and techniques to solve problems in all areas of the sciences, engineering, technology, social sciences, business, industry and commerce.

Skill Level: 1

Specialisation:

- Operations Research Analyst

~~224113 Statistician~~

~~Designs and applies statistical principles and techniques for collecting, organising and interpreting quantifiable data, and uses statistical methodologies to produce statistical reports and analyses for government, commercial and other purposes. Registration or licensing may be required~~

~~Skill Level: 1~~

~~Specialisations:~~

- ~~Biometrician~~
- ~~Biostatistician~~
- ~~Demographer~~
- ~~Epidemiologist~~

224114 Data Analyst

Gathers information from datasets, applies algorithms and information technology tools to transform and prepare visualisations such as graphs, charts, and dashboards in all areas of the sciences, engineering, technology, social sciences, business, industry and commerce to derive actionable insights.

Skill Level: 1

224115 Data Scientist

Applies analytic techniques and scientific principles to large datasets by using advanced algorithms including building and deploying sophisticated machine learning models to draw valuable information and tailored analytical solutions for strategic planning and business decision making.

Skill Level: 1

224116 Statistician

Designs and applies statistical principles and techniques for collecting, organising and interpreting quantifiable data, and uses statistical methodologies to produce statistical reports and analyses for government, commercial and other purposes. Registration or licensing may be required

Skill Level: 1

Specialisations:

- Biometrician
- Biostatistician
- Demographer
- Epidemiologist

2247 MANAGEMENT AND ORGANISATION ANALYSTS

Management and Organisation Analysts assist organisations to achieve outcomes, continual improvement and greater efficiency. They study organisational structures, methods, risks, systems and procedures. ICT Business Analysts are excluded from this unit group.

ICT Business Analysts are included in Unit Group 2611 ICT Business and Systems Analysts.

Indicative Skill Level:

In Australia and New Zealand:

Most occupations in this unit group have a level of skill commensurate with a bachelor degree or higher qualification. At least five years of relevant experience may substitute for the formal qualification. In some instances relevant experience and/or on-the-job training may be required in addition to the formal qualification (ANZSCO Skill Level 1).
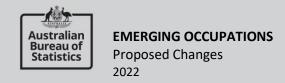
Tasks Include:

- assisting and encouraging the development of objectives, strategies and plans aimed at achieving optimal customer experience and satisfaction and the effective use of organisations' resources and capabilities
- identifying business and organisational gaps and opportunities through application of continuous improvement and change methodologies
- analysing and evaluating current systems, capabilities and structures
- advising clients on recommendations based on analysis of current-state gaps to provide solutions to organisational problems
- preparing and recommending proposals to revise methods and procedures, alter work flows, redefine job functions and support organisational innovation and improvements
- assisting in implementing approved recommendations
- providing coaching and mentoring to individuals and teams to build specific capabilities
- identifying areas for efficiency improvement in supply chains
- analysing logistics data to provide insights and recommendations
- liaising with different business areas to implement changes and new systems
- planning logistics and forecasting and monitoring inventory

Occupations:

- 224711 Management Consultant
- 224712 Organisation and Methods Analyst
- 224713 Supply Chain and Logistics Analyst

224711 Management Consultant

Alternative Title:

- Business Consultant

Assists organisations to achieve greater efficiency and solve organisational problems which exclude the deployment of quality systems and certification processes.

Skill Level: 1

Specialisations:

- Business Analyst
- Business Improvement Manager

224712 Organisation and Methods Analyst

Alternative Title:

- Procedures Analyst

Studies organisational structures, methods, systems and procedures.

Skill Level: 1

Specialisations:

- Change Management Facilitator
- Delivery Coach
- Industry Analyst
- Quality Auditor

224713 Supply Chain and Logistics Analyst

Analyses product delivery and supply chain processes to identify and recommend changes. May manage route activity including invoicing, electronic billing, and shipment tracing.

Skill Level: 1

2613 SOFTWARE AND APPLICATIONS PROGRAMMERS

Software and Applications Programmers design, develop, test, maintain and document program code in accordance with user requirements, and system and technical specifications.

Indicative Skill Level:

In Australia and New Zealand:

Most occupations in this unit group have a level of skill commensurate with a bachelor degree or higher qualification. At least five years of relevant experience and/or relevant vendor certification may substitute for the formal qualification. In some instances relevant experience and/or on-the-job training may be required in addition to the formal qualification (ANZSCO Skill Level 1).

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 including technical security controls 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
- managing testing and automation of software and application deployments
- collecting and analysing operational metrics
- developing continuous improvement and continuous delivery strategies across system design and software development
- the creation and development of the tools required to support software and its management and security
- performing forensic analysis to identify anomalies or threats
- performing encryption and decryption
- identification and mitigation of risks that may affect the performance and security throughout the lifecycle of the product.
- modelling, conceptualising and optimising databases

Occupations:

- 261311 Analyst Programmer
- 261312 Developer Programmer
- ~~261313 Software Engineer~~
- 261314 Software Tester
- 261315 Cyber Security Engineer
- 261316 DevOps Engineer
- 261317 Penetration Tester
- 261318 Data Architect
- 261321 Data Engineer
- 261322 Software Engineer
- 261399 Software and Applications Programmers nec

261311 Analyst Programmer

Alternative Title:

- Programmer Analyst

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

Skill Level: 1

261312 Developer Programmer

Alternative Titles:

- Applications Developer
- ICT Developer
- ICT Programmer

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

Skill Level: 1

Specialisations:

- Cyber Security Developer
- Database Developer
- Database Programmer (Systems)
- Network Programmer
- Software Developer

- Software Programmer

~~261313 Software Engineer~~

~~Alternative Titles:~~

- ~~Software Architect~~
- ~~Software Designer~~

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

~~Skill Level: 1~~

~~Specialisations:~~

- ~~Computer Applications Engineer~~
- ~~Database Designer~~
- ~~Systems Architect~~

261314 Software Tester

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. It excludes testing of technical security controls.

Skill Level: 1

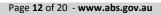## 261315 Cyber Security Engineer

Alternative Title:

- ICT Security Engineer
- Information Security Engineer

Designs, develops, modifies, documents, tests, implements, installs and supports cybersecurity software applications and systems; ensures they are fully integrated.

Skill Level: 1

261316 DevOps Engineer

Facilitate and undertake communication, collaboration, integration and automation to improve efficiency and workflow across different specialist IT teams.

Skill Level: 1

Specialisations:

- Cloud Computing Engineer
- Continuous Integration Engineer

261317 Penetration Tester

Alternative Titles:

- Ethical Hacker
- ICT Vulnerability Tester
- White Hat

Creates test cases using in-depth technical analysis of risks and typical vulnerabilities and produces test scripts, materials and packs to test new and existing software or services, plans, coordinates and conducts cyber threat emulation activities in support of certification, accreditation, and operational priorities to verify deficiencies in technical security controls.

Skill Level: 1

261318 Data Architect

Designs strategies for enterprise database systems and sets standards for operations, programming, security and designs. Constructs large relational databases, integrates new systems with existing warehouse structures and refines system performance and functionality.

Skill Level: 1

261321 Data Engineer

Integrates, consolidates and maintains databases by building data pipelines to gather information from different source systems. Structures data for use in individual analytics applications and develops algorithms to help make raw data more useful.

Skill Level: 1

261322 Software Engineer

Alternative Titles:

- Software Architect
- Software Designer

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

Skill Level: 1

Specialisations:

- Computer Applications Engineer
- Database Designer
- Systems Architect

261399 Software and Applications Programmers nec

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

Skill Level: 1

Occupations in this group include:

- No occupations have currently been identified for this residual category.

5421 RECEPTIONISTS

Receptionists receive and welcome visitors, patients, guests and clients, and respond to inquiries and requests.

Medical Secretaries are included in this unit group, in Occupation 542114 Medical Receptionist.

Indicative Skill Level:

Most occupations in this unit group have a level of skill commensurate with the qualifications and experience outlined below.

In Australia:

- AQF Certificate II or III (ANZSCO Skill Level 4)

In New Zealand:

- NZQF Level 2 or 3 qualification (ANZSCO Skill Level 4)

At least one year of relevant experience may substitute for the formal qualifications listed above. In some instances relevant experience and/or on-the-job training may be required in addition to the formal qualification.

Tasks Include:

- greeting and welcoming visitors, and directing them to the appropriate person
- arranging and recording details of appointments
- answering inquiries and providing information on the goods, services and activities of the organisation
- answering, connecting and transferring telephone calls
- receiving and resolving complaints from clients and the public
- receiving and distributing correspondence, facsimile messages and deliveries
- maintaining the reception area
- advising on and arranging reservations and accommodation
- assists visitors in accurately completing appropriate forms and documents
- collects payment of fees and performs other cash handling activities
- may perform other clerical tasks such as word processing, data entry, filing, mail despatch and photocopying

Occupations:

- 542111 Receptionist (General)
- 542112 Admissions Clerk

- 542113 Hotel or Motel Receptionist
- 542114 Medical Receptionist

542111 Receptionist (General)

Greets clients and visitors, and responds to personal, telephone, email and written inquiries and requests.

Skill Level: 4

542112 Admissions Clerk

Alternative Title:

- Hospital Ward Clerk

Records and processes information required for the admission and discharge of hospital patients and responds to telephone inquiries.

Skill Level: 4

542113 Hotel or Motel Receptionist

Greets and checks in guests, and looks after their needs on arrival and during their stay in a hotel or motel.

Skill Level: 4

542114 Medical Receptionist

Alternative Title:

- Patient Liaison Officer

Greets patients and other clients in a health facility, such as a clinic, practice, centre or surgery, and responds to personal, telephone and written inquiries and requests. Provides support to patients during treatment in a hospital or healthcare facility.

Skill Level: 4

7119 OTHER MACHINE OPERATORS

This unit group covers Machine Operators not elsewhere classified. It includes Chemical Production Machine Operators, Motion Picture Projectionists, Sand Blasters and Sterilisation Technicians.

Indicative Skill Level:

Most occupations in this unit group have a level of skill commensurate with the qualifications and experience outlined below.

In Australia:

- AQF Certificate II or III (ANZSCO Skill Level 4)

In New Zealand:

- NZQF Level 2 or 3 qualification (ANZSCO Skill Level 4)

At least one year of relevant experience may substitute for the formal qualifications listed above. In some instances relevant experience and/or on-the-job training may be required in addition to the formal qualification.

Occupations:

- 711911 Chemical Production Machine Operator
- 711912 Motion Picture Projectionist
- 711913 Sand Blaster
- 711914 Sterilisation Technician
- 711999 Machine Operators nec

711911 Chemical Production Machine Operator

Operates machines to produce chemical goods such as soaps, detergents, pharmaceuticals, toiletries and explosives.

Skill Level: 4

Specialisations:

- Bullet Maker
- Candle Maker
- Cosmetics Machine Operator
- Explosives Mixer Operator
- Nitrocellulose Maker

- Paint Tinter
- Tablet Making Machine Operator

711912 Motion Picture Projectionist

Operates film projection and related sound reproduction equipment.

Skill Level: 4

711913 Sand Blaster

Operates sandblasting machines to clean and grind metal products and other hard surfaces.

Skill Level: 4

711914 Sterilisation Technician

Cleans, sterilises and packages surgical instruments and other hospital equipment, soft goods and linen in a sterilisation service facility.

Skill Level: 4

711999 Machine Operators nec

This occupation group covers Machine Operators not elsewhere classified.

Skill Level: 4

Occupations in this group include:

- Amusement Ride Operator
- Asbestos Remover
- Brush Maker
- Unmanned Aerial Vehicle (UAV) Pilot
- Venetian Blind Machine Operator

8211 BUILDING AND PLUMBING LABOURERS

Building and Plumbing Labourers perform a variety of routine tasks associated with erecting and repairing structures and facilities, maintaining stormwater, drainage and sewerage systems, excavating earth and clearing and levelling sites, and installing and maintaining piping systems, fixtures and water regulators.

Indicative Skill Level:

Most occupations in this unit group have a level of skill commensurate with the qualifications outlined below.

In Australia:

- AQF Certificate I, or compulsory secondary education (ANZSCO Skill Level 5)

In New Zealand:

- NZQF Level 1 qualification, or compulsory secondary education (ANZSCO Skill Level 5)

For some occupations a short period of on-the-job training may be required in addition to or instead of the formal qualification. In some instances no formal qualification or on-the-job training may be required.

Registration or licensing may be required

Tasks Include:

- loading and unloading building and construction materials, tools and equipment and transporting them around building sites
- erecting and dismantling temporary structures such as barricades and scaffolding
- mixing, pouring and spreading materials such as concrete, plaster and mortar
- using ladders, swinging scaffolds, bosun's chairs, hydraulic bucket trucks and other equipment to reach and demolish multi-storey structures
- cleaning and carrying out minor repairs on stormwater drains and canals, and checking for cracks and leaks in sewerage systems
- removing hazardous materials including asbestos contaminated dust or debris
- digging holes and shovelling excavated material onto conveyors, wheelbarrows and trucks for removal
- spreading and levelling soil, gravel and sand on roads and driveways, trench bottoms and similar locations
- assisting with assembling and installing piping, valves and fittings
- assisting with installing fixtures such as toilets, wash basins and sprinkler systems

Occupations:

- 821111 Builder's Labourer
- 821112 Drainage, Sewerage and Stormwater Labourer
- 821113 Earthmoving Labourer
- 821114 Plumber's Assistant

821111 Builder's Labourer

Alternative Title:

- Construction Worker

Performs routine tasks in erecting and repairing structures and facilities on building and construction sites and in factories producing prefabricated building components. Including removal of hazardous material.

Skill Level: 5

Specialisations:

- Bricklayer's Assistant
- Carpenter's Assistant
- Tiler's Assistant
- Asbestos Remover