

Air Transport Professionals

Description

PILOTS fly aircraft to transport passengers, mail and freight or provide agricultural, aviation and aerial surveillance services.

Tasks for this occupation include:

- prepare and submit flight plans giving consideration to factors such as weather conditions and aircraft performance
- fly aircraft in accordance with established air traffic control and aircraft operating procedures
- examine number of passengers, quantity of freight to be moved, and location of pick-up and destinations, and assess fuel requirements
- examine maintenance releases and conduct inspections to ensure aircraft are mechanically sound, maintenance has been performed and that all equipment is operational
- brief crew of flight details and coordinate crew activities
- monitor information from instruments to keep aircraft on track and flying safely
- obtain briefings and clearances before flights and maintain contact with air traffic or flight control during flights

AIR TRAFFIC CONTROLLERS ensure the safe and efficient movement of aircraft in controlled airspace and aerodromes by directing aircraft movements.

Tasks for this occupation include:

- oversee the preparation and processing of aeronautical information necessary for the safety, regulation and efficiency of air navigation
- provide flight information for flight crews and air traffic services staff, such as wind direction and strength, details of cloud cover and temperature and altimeter settings
- check flight plans, position reports, flight levels, estimated arrival times at reporting points or destinations and authorise changes of flight levels and altitudes
- control aircraft movements in the air using radar or non-radar procedures and direct aircraft by radio
- control aircraft movements on aerodromes by issuing runway clearances, and direct taxiing, take offs and landings
- control the operation of airport lighting systems such as runway and approach lights and aerodrome beacons
- communicate with other air traffic control units to coordinate activities
- alert airport fire crew and emergency or search and rescue services when aircraft are in difficulty
- organise search and rescue assistance to aircraft in distress
- may instruct air traffic control trainees and train licensed controllers upgrading their ratings

FLYING INSTRUCTORS teach the theory and practical skills of flying aircraft.

Tasks for this occupation include:

- develop course outlines, lesson plans and resource materials
- lecture, demonstrate and provide practical exercises for students
- instruct in the operation of communications, navigational and meteorological equipment
- teach use of aircraft controls and instruments
- teach operational considerations such as airframe construction characteristics and engine performance
- demonstrate the use of safety equipment and pre-flight inspection of aircraft
- give in-flight instruction, supervise solo flights, accompany students on training flights and demonstrate techniques for controlling aircraft during taxiing, take off, turns and landings

- test students' proficiency using written, theoretical, practical and verbal examination techniques
- make recommendations for examining and licensing at end of training
- may give post-licensing rating and endorsement training to student and qualified pilots

FLIGHT SPECIALISTS, including Flight Service Officers and Flight Engineers, provide advice and information required for the safe and efficient control of aircraft flying within assigned airspace and liaises with Aircraft Pilots and engineering maintenance staff to advice on operational engineering matters.

Tasks for this occupation include:

- Flight Service Officers provide pre-flight briefings and aeronautical information services to pilots
- accept and distribute flight plans
- advise on the operational status of aerodromes, navigational aids and communications, and changes in weather conditions
- monitor the progress of flights
- initiate search and rescue action in emergencies or if aircraft are overdue
- operate communications and other facilities such as radio, radio navigational aids, airport and runway lights and telecommunications
- Flight Engineers inspect aircraft documents regarding operational status of aircraft
- complete cockpit preparations and external inspections to determine whether aircraft are acceptable for flight
- operate aircraft engines and systems in accordance with flight manuals, manage fuel-feed systems and compute fuel consumption and jettison
- monitor communications to maintain awareness of altimetry and aircraft flight paths
- maintain flight logs concerning operational data, periodical instrument readings and flight path comparisons
- initiate emergency procedures for aircraft engines systems in coordination with pilots or under captains' instructions
- may service aircraft and certify airworthiness if appropriately licensed, where ground staff are not available

Training Requirements

PILOTS/ FLYING INSTRUCTORS

Entry to these occupations is commensurate with an AQF diploma or higher qualification and a prescribed minimum amount of flying experience in addition to the formal qualification.

AIR TRAFFIC CONTROLLERS

Entry to this occupation is through the completion of a training course commensurate with an AQF Diploma and relevant experience in addition to the formal qualification.

FLIGHT SPECIALISTS

Entry requirements to this occupation are commensurate with an AQF Diploma or higher qualification and relevant experience in addition to the formal qualification.

Computing Professionals

Description

IT SYSTEMS ANALYSTS investigate, analyse and recommend appropriate IT systems.

Tasks for this occupation include:

- establish business IT system needs
- recommend appropriate business application systems
- analyse data movements, data flows and technical IT requirements to define a network strategy and the required equipment
- analyse components of operational systems to optimise system performance against operational standards in areas such as response time and down time

IT DESIGN SPECIALISTS create detailed design documentation to guide programming staff. The design role may be combined with that of the Analyst and/or Programmer.

Tasks for this occupation include:

- assess the feasibility of conceptual IT designs taking account of technical specifications
- draw detailed IT design documentation including charts and diagrams
- prepare instructions for programmer implementation
- liaise with Systems Analysts and Programmers to check functionality back to systems specifications
- design monitoring and performance measurement processes

IT MULTIMEDIA DEVELOPERS generate and manipulate graphic images, animations, sound, text, and video for multimedia programs.

Tasks for this occupation include:

- determine multimedia requirements
- investigate, analyse and recommend appropriate platforms and software to achieve clients' objectives
- prepare flow diagrams and storyboards to outline product concepts and treatments
- prepare code to produce multimedia products
- prepare two and three dimensional graphic images, animations, video/sound production and editing, scanning in digital format
- retouch and manipulate photographs and images
- prepare instructional design and screen design concepts
- consult with related graphics, production and engineering experts
- manage the development and implementation of multimedia products

IT ANALYST/PROGRAMMERS translate specifications for new or modified computer systems, applications or networks, into specified units or program specifications.

Tasks for these occupations include:

- assist analysts and/or designers in researching and documenting computer user's requirements
- convert design specifications into instructions (code) which can be directly interpreted by the computer and tested for correctness against desired results
- undertake programme design activities including data and module definition, specification of input/output between systems and error message configurations
- modify and document program code to correct errors or to enhance programme capabilities
- test the validity and logic of programs and make amendments

- prepare reports, manuals and documentation on the status, operation and maintenance of system software
- analyse, review and rewrite programmes and associated component modules

IT HARDWARE/SYSTEMS ENGINEERS

Tasks for these occupations include:

- devise and undertake regular service programmes, including support of operating systems
- analyse problems, and develop and implement solutions
- Advise on site preparation and installation of large computer systems
- install cabling for computer networks
- Detail the computer hardware and peripherals required to run an IT system across desktop, mid range and/or mainframe environments
- may manage projects and supervise staff

IT SYSTEMS ADMINISTRATORS manage the effectiveness of information technology systems, and arrange system maintenance and enhancements to meet user requirements.

Tasks for this occupation include:

- consult with managerial, administrative and technical staff to determine information needs, data flows and system definitions
- establish and control system access and security
- co-ordinate protocols for operation within multi-user information technology networks providing voice, data and text transmission
- monitor systems to optimise performance and initiate recovery action in the case of system failures
- implement regular maintenance procedures including data back-up
- co-ordinate system updates
- maintain data dictionaries
- provide advice to users on data structures and terminology
- provide assistance in testing new equipment and systems
- prepare technical reports on the operation of systems
- prepare system cost estimates and cost-benefit analyses
- co-ordinate support work and training in system use and access

Training Requirements

IT SYSTEMS ANALYSTS/ IT MULTIMEDIA DEVELOPERS

Entry to these occupations is generally through a bachelor degree or higher qualification.

IT ANALYST/PROGRAMMERS/ IT HARDWARE/SYSTEMS ENGINEERS

Entry to these occupations is generally through a bachelor degree or higher qualification. In some instances relevant experience is also required.

IT SYSTEMS ADMINISTRATORS/ IT DESIGN SPECIALISTS

Entry to these occupations is generally through a bachelor degree or higher qualification. In some instances relevant experience is required in addition to the formal qualification.

Environmental and Agricultural Science Professionals

Description

ENVIRONMENTAL AND AGRICULTURAL SCIENTISTS study and develop plans and policies for the environment, study plants, animals and cultivation techniques for increased productivity of farms, and advise farmers on farming.

Tasks for these occupations include:

- study the effects on animal and plant life of such factors as terrain, altitude, climatic conditions, sources of nutrition and predators
- investigate the structure of communities of organisms and predict the effects of disturbances by human or environmental changes
- study the factors affecting commercial crops, pasture and animal breeding
- study the effects of cultivation techniques, soils, insects and plant diseases on animal and plant production
- may advise farmers on improving the production of crops and livestock, and alternative agricultural enterprises

PARK RANGERS control state or national parks, scenic areas, historic sites, nature reserves, recreation areas or conservation reserves.

Tasks for this occupation include:

- implement policies and organise activities in a designated park or area to conserve and protect natural or cultural heritage
- participate in management planning by providing environmental information and making inventories of plants, animals and items of cultural or heritage significance
- inform visitors of park facilities and features, supervise public visits and may collect fees from visitors
- coordinate search and rescue operations, draw up fire prevention plans and undertake hazard reduction work and fire fighting
- enforce park regulations to protect parks, reserves and wildlife
- control feral plants and animals

FORESTRY AND SOIL PROFESSIONALS study, develop and manage forest areas to maintain commercial and recreational uses, conserve flora and fauna, and protect against fire, pests and diseases. **SOIL SCIENTISTS** study the location, composition and characteristics of soils to improve soil management, ensure soil conservation, classify soil types, and improve soil productivity.

Tasks for these occupations include:

- Foresters manage forest resources to maximise their long-term commercial, recreational and environmental benefits
- study the propagation and culture of forest trees, improvement of growing stock and the effects of thinning on forest yields
- prepare plans for reforestation and devise efficient harvesting systems
- Soil Scientists investigate soil fertility taking into account elements required for plant growth and productivity
- study the physical and chemical properties of soils to determine the potential for plant growth, water absorption, drainage, acidity and texture
- develop soil management practices and study their effects on long-term productivity of soil

Training Requirements

Entry to these occupations is generally through a bachelor degree or higher qualification. In some instances relevant experience is also required.

Other Business and Information Professionals

Description

RECORDS MANAGERS design, implement and administer record systems and related information services, to support efficient access, movement, updating and storage of files and other organisational records.

Tasks for this occupation include:

- analyse record-keeping needs and translate these into record management systems
- maintain computerised and other record management systems and record forms, and advise on their use
- train staff in the use of record management systems
- control access to confidential information, and recommend record access codes of practice and procedure
- develop record coding and classification structures, and monitor their use
- extract statistical and other data
- assist with surveys and other research requiring access to recorded information
- conduct audits to identify missing records and arrange searches
- develop records disposal schedules and monitor their use
- process requests under freedom of information legislation

ARCHIVISTS plan and organise systems and procedures for the safekeeping of records and historically valuable documents. **INTELLIGENCE PROFESSIONALS** manage the collection and processing of data to produce intelligence for public and private sector organisations in their planning, operations and personnel functions.

Tasks for these occupations include:

- Archivists evaluate and preserve records for legal, administrative, historical and other purposes
- prepare record-keeping systems, indexes, guides and procedures for archival research and for the retention or destruction of records
- assess records and negotiate for their transfer to archival custody
- direct processes for the cataloguing, conservation, restoration and destruction of records
- administer access provisions laid down by legislation, organisational regulations and depositors' directions
- provide policy and technical advice on the management of records
- Intelligence Professionals determine organisational and client intelligence requirements
- organise the collection, collation and analysis of data and develop intelligence information
- compile and disseminate intelligence using briefings, maps, charts, reports and other methods
- determine the accuracy of data collected and reliability of sources
- conduct threat and risk assessments
- may conduct security surveys and inspections of buildings, installations, activities and personnel

POLICY ANALYSTS analyse and advise on policies guiding the design, implementation and modification of government and commercial operations and programmes.

Tasks for this occupation include:

- review existing policies and legislation to identify anomalies and outdated provisions
- Research social, economic and industrial trends and client expectations of programmes and services
- formulate and analyse policy options, and advise on options
- assess the financial implications and equity of policies

- liaise and consult with programme administrators and others to identify policy needs
- prepare briefing papers and recommendations for policy changes

HEALTH INFORMATION MANAGERS design, implement and administer medical record systems and information services in accordance with legal and confidentiality requirements. **RECORDS ADMINISTRATORS** design, implement and administer records systems to support efficient access, movement, updating and storage of files and other organisational records.

Tasks for these occupations include:

- Health Information Managers design and maintain computerised and other health information systems and advise on their use
- design and revise medical record forms
- recruit and train medical record staff and provide in-service training for clerical staff
- organise work flows, budget preparation, equipment ordering, medical transcription and ward clerk services
- control access to information and conduct statistical studies
- assist with surveys, projects and evaluative studies in the hospital and health fields

Training Requirements

Entry to these occupations is generally through a bachelor degree or higher qualification. In some instances relevant experience is also required.

Other Health Professionals

Description

AUDIOLOGISTS provide diagnostic assessment and rehabilitative services to people with hearing problems. **ORTHOPTISTS** diagnose and manage eye movement disorders and associated problems. **ORTHOTISTS** design, build, fit and repair splints, braces, callipers and related appliances to restore functions or compensate for muscular or skeletal disabilities.

Tasks for these occupations include:

- Audiologists administer and interpret audiometric tests to determine hearing efficiency and detect hearing problems
- interpret audiometric test results with other medical, social and behavioural diagnostic data
- plan, direct and participate in counselling, speech-reading and other rehabilitative programmes
- prescribe hearing aides and instruct patients in use
- record patients' condition, treatment and progress
- Orthoptists diagnose eye movement disorders and defects of binocular function
- test visual acuity, using special eye test equipment
- prescribe exercises to coordinate movement and focusing of eyes
- manage programmes for eye movement disorders and instruct and counsel patients in the use of corrective techniques and eye exercises
- conduct field testing, such as glaucoma investigation and preventative screening and rehabilitation programmes for the visually impaired
- work with doctors and therapists in the care and treatment of patients
- Orthotists consult, design and select materials and components for orthotic and prosthetic devices, taking casts and measurements, making modifications and performing fittings
- evaluate the function and appearance of devices on patients and advise on use
- may examine patient needs and assist physicians in pre-surgical planning and design for the construction of devices

RECREATIONAL THERAPISTS plan and direct recreation programmes in health care environments. This occupation also includes Dance, Diversion, Drama and Music Therapists as well as Hypnotherapists.

Tasks for this occupation include:

- Recreational Therapists consult with clients to determine their requirements and problems
- explain the effects of hypnosis to clients and outline how hypnosis works
- induce hypnotic state using techniques appropriate to the client's problems and needs
- plan and organise activities such as sport, games, art and craft
- assist clients to develop social skills through participation
- instruct clients in relaxation techniques and stress reduction
- prepare records of clients' progress
- record clients' medical information
- Hypnotherapists induce a hypnotic state in clients to change behaviour or increase motivation.

Training Requirements

AUDIOLOGISTS/ ORTHOPTISTS/ ORTHOTISTS

Entry to these occupations is generally through a bachelor degree or higher qualification.

RECREATIONAL THERAPISTS

Entry to this occupation is generally through a bachelor degree or higher qualification or at least 5 years relevant experience.

Other Intermediate Clerical Workers

Description

DEBT COLLECTORS collect payments for overdue accounts, overdue instalments or damage claims on behalf of creditors.

Tasks for this occupation include:

- visit or telephone debtors to collect amounts due or to arrange for payments to be made
- trace addresses of debtors who have moved
- recommend legal action when collection cannot be made
- record amounts collected and note further action required
- prepare statements of account for creditors or arrange for money collected to be transferred to their accounts
- may perform clerical tasks involving the preparation of collection notices to be posted

MAIL SUPERVISORS supervise and coordinate the activities of mail processing staff.

COURT OFFICERS provide operational support to courts and registries.

Tasks for these occupations include:

- Court Officers open and close court and hearing room proceedings
- organise jury and witness lists, summon and swear-in juries and witnesses
- maintain order in court, hearing rooms and adjacent areas
- announce cases and call witnesses
- post court lists on notice boards
- allocate rooms for use by legal practitioners
- sort and deliver court records and mail to chambers
- may prepare sound recording equipment for court and hearing rooms
- Mail Supervisors determine work requirements and allocate duties to Mail Sorting Clerks, Messengers and Sales Assistants (Postal Services)
- maintain attendance records and rosters
- explain and enforce safety regulations
- oversee the work of the mail unit and suggest improvements and changes
- may perform the tasks of a Mail Sorting Clerks, Messengers and Sales Assistants (Postal Services)

TRAVEL and CODING CLERKS translate narrative descriptions or numeric information into classification or record systems.

Tasks for these occupations include:

- assign classification codes according to set procedures
- optimise coding input and quality
- may provide advice to users of data

PROOF READERS read draft copies and proofs, detect errors and mark corrections to grammar, typing or composition.

Tasks for this occupation include:

- read draft copies and mark errors
- discuss grammatical or compositional errors in copy with authors, and obtain signatures on copy authorising changes
- mark proofs using codes to indicate deviations from copy or instruct operators to alter typographic details

- lodge marked proof for amendment
- sign and date proofs to indicate approval of corrections and authorise preparation of type for printing

Training Requirements

Entry to these occupations is generally through an AQF Certificate II or higher qualification or at least one year's relevant experience. In some instances relevant experience is required in addition to the formal qualification.

Other Intermediate Service Workers

Description

ANIMAL ATTENDANTS feed, water, exercise and care for animals and birds in restricted environments such as zoos, circuses, kennels, veterinary clinics and research establishments.

Tasks for this occupation include:

- clean and disinfect animal cages and enclosures
- feed animals and birds
- bathe and groom animals
- treat minor injuries and report serious conditions to veterinarians
- inspect animal cages
- transfer animals between enclosures
- dust and spray insecticides on animals and birds to control insect pests, or immerse them in insecticide baths
- position and restrain animals for veterinary treatment
- may, under the direction of trained staff, perform veterinary procedures such as giving injections or medication to animals

DRIVING INSTRUCTORS instruct individuals and groups in the theory and application of driving.

Tasks for this occupation include:

- instruct students under actual driving conditions, explain and demonstrate the operation of brakes, clutch, gear selection, automatic transmission, signals and lights
- teach road traffic regulations
- advise students when ready to undergo driving examination
- may illustrate and explain handling and mechanical operation of motor vehicles, driving techniques and emergency procedures using blackboard diagrams and audio-visual aids

PEST AND WEED CONTROLLERS apply pest and weed management techniques to kill or control pests and weeds in domestic, commercial and industrial areas, roadsides, private and public land.

Tasks for these occupations include:

- inspect buildings and surrounding areas to detect signs of termites, rodents or other pests and weeds
- decide on type of treatment and provide estimates of cost
- mix chemical for pest and weed control and operate pumps to inject or spray pesticides or herbicides
- dust infested areas with insecticidal powder
- Advise on weed control and prevention techniques
- set mechanical traps and place poisonous baits in infested areas
- proof buildings against birds, insects, possums and other pests
- seal vents and other openings prior to fumigating
- fumigate storage spaces, house furnishings and clothing

MUSEUM ATTENDANTS direct and guide patrons in museums and galleries.

Tasks for this occupation include:

- conduct tours of museums or galleries
- answer inquiries
- give visitors information about exhibits
- control visitors' access to exhibits
- check that all visitors have left at closing time
- may inspect membership cards, admission passes and tickets
- may patrol museum or gallery to ensure security

Training Requirements

Entry to this occupation is generally through an AQF Certificate II or higher qualification or at least one year's relevant experience.

Other Mining, Construction and Related Labourers

Description

LAGGERS apply insulating materials, such as asbestos, felt, fibreglass, polyurethane and cork to pipes, steam generators, process vats or ducting. **CRANE CHASERS** sling and direct the movement of loads handled by cranes or winches in locations such as manufacturing plants and construction sites.

Tasks for these occupations include:

- Lagggers examine specifications to determine insulation requirements
- cut, shape, trim and smooth insulating sheets to cover parts of equipment and pipes
- wrap or fit insulating materials around air-conditioning ducts, and trim materials with scissors or shears
- fit and tape preformed insulation around pipes
- brush or spray waterproof cement over insulating materials
- secure insulation with wire, wire netting, staples, metal strapping or using welding torches
- trowel plaster over wire netting, and wrap canvas strips over plaster
- pack cavities in walls and partly assembled casings with loose particles of insulating material
- install prefabricated insulating assemblies, using hand tools and metal fasteners
- Crane Chasers examine loads to be moved, estimating size, shape, weight and centre of gravity
- ensure that loads do not exceed lifting capacities of cranes and select slings or other grappling devices
- attach lifting devices to hoisting equipment and items to be moved, using clamps, hooks, bolts and knots
- apply slings, covering sharp corners with padding to prevent damage to slings
- ensure loads are secure and signal crane or winch operators to lift loads
- ensure loads are evenly balanced and guide loads into position as they are lowered
- inspect chains, slings, ropes, cables, hooks and lifting gear for flaws and damage

FENCE ERECTORS erect and repair fences and gates.

Tasks for this occupation include:

- lay out fence lines and mark positions for post holes
- prepare area for erection of the fence
- lift and position posts in holes
- secure fence posts with concrete or stone fill or soil
- form the fencing frames
- attach gates
- stretch materials between fence posts
- construct wooden paling fences
- construct fences made with fibre-cement materials
- repair or demolish existing fences
- may provide quotations

Training Requirements

Entry to these occupations is generally through completion of compulsory secondary education or higher qualification.

Other Miscellaneous Advanced Clerical and Service Workers

Description

AUCTIONEERS sell real estate or merchandise at auction.

Tasks for this occupation include:

- appraise and list properties or articles for auction
- organise advertising, catalogues and other publicity
- consult vendors and set reserve prices
- describe properties or articles presented and the conditions of sale
- determine or ask for starting bids
- accept bids and close sales to the highest bidder
- supervise the activities of auction room attendants

WINDOW DRESSERS plan and install internal, window and fixed displays of merchandise to show goods to their best advantage. Tasks for this occupation include:

- decide which goods are to be displayed
- develop promotional and display plans
- prepare sketches or models showing layout, colour and other features
- obtain props and other accessories, and build displays
- set up and arrange fabricated displays in store windows or other areas
- organise the setting out of merchandise or articles to be shown
- arrange ticketing and signage
- arrange lighting to highlight fixtures, displays and goods

RADIO DESPATCHERS provide radio and communications services for the coordination of operational units in transport, courier, military, emergency, security, rescue and road service organisations.

Tasks for this occupation include:

- receive and relay radio or telecommunications messages from operational units, customers, the public or organisations such as the police, ambulance and fire services
- coordinate radio or network communications between operational units
- maintain records of messages received and relayed
- prepare reports of communications traffic handled
- may coordinate the movements of mobile units
- may monitor alarm systems

PHOTOGRAPHER'S ASSISTANTS help photographers to take and develop photographs.

Tasks for this occupation include:

- arrange lights and screens, position cameras and move objects to create desired background
- clean camera equipment and recharge batteries
- load film into cameras and film magazines
- assist with darkroom tasks such as mixing chemical solutions and developing films, and undertake routine printing of photographs
- transport and carry equipment on location
- may label photographs, and hire models, scenery and props

Training Requirements

Entry to this occupation is generally through an AQF Certificate III or higher qualification or at least 3 years relevant experience. In some instances relevant experience is required in addition to the formal qualification.

Other Natural and Physical Science Professionals

Description

METALLURGISTS research, develop, control and provide advice on processes used in extracting metals from their ores and the washing, crushing and grading of ore and for casting, alloying, heat treating or welding refined metals, to produce commercial metal products or develop new alloys and processes.

Tasks for this occupation include:

- study and apply chemical and metallurgical techniques for extracting and refining metallic materials from their ores or concentrates
- coordinate the analysis of samples from metallurgical process streams
- specify temperature adjustments, charge mixtures and other processing variables
- investigate methods of improving metallurgical processes
- conduct studies of metals and alloys
- examine metal processing techniques
- test alloys to study their properties and check compliance with standards
- compile, record and manipulate data from experiments and observations
- consult with engineers to develop economical manufacturing methods for alloys, minimise air and water pollution and to set up inspection and testing procedures

PHYSICISTS study the structure and physical properties of matter and the relationships and interactions of matter and energy to develop and improve materials, products, industrial and other processes.

Tasks for this occupation include:

- perform experiments, tests and analyses to investigate the structure and properties of matter and energy, in fields such as mechanics, heat, light, sound, electricity and magnetism, electronics, and nuclear and solid state physics
- perform experiments to discover and develop industrial, medical, military and other practical applications of the laws and theories of physics
- maintain and develop standards for measurements such as length and time

METEOROLOGISTS study the physics and dynamics of the atmosphere to increase understanding of weather and climate, and to forecast changes in the weather.

Tasks for this occupation include:

- analyse and interpret satellite photographs, remote sensing and other observational data concerning atmospheric phenomena
- prepare weather forecasts
- prepare warnings relating to atmospheric phenomena such as cyclones, storms or other hazards to life and property
- study climate data and use statistics to determine and interpret climatic trends and predict changes
- undertake research into the behaviour of the atmosphere

MATERIALS SCIENTISTS study the properties and uses of non-metallic materials and advise on the technical aspects of their manufacture and processing.

Tasks for this occupation include:

- study the properties of non-metallic materials such as ceramics, polymers and plastics, composite materials and rubbers

- manage and perform laboratory investigations, testing and evaluations of materials and products
- plan and undertake experimental production of non-metallic materials
- consult with other scientists and engineers on the development and production of non-metallic materials

Training Requirements

Entry to this occupation is generally through a bachelor degree or higher qualification. In some instances relevant experience is also required.

Other Professionals

Description

WINE MAKERS plan, supervise and coordinate the production of wine or spirits.

Tasks for this occupation include:

- liaise with vineyard personnel or contract growers to provide grapes for processing
- examine grape samples to assess ripeness, sugar and acid content, and determine suitability for processing
- coordinate wine-making processes, direct workers in testing and crushing grapes, ferment juices, and fortify, clarify, mature and finish wines
- blend wines according to formulae or knowledge of wine-making techniques
- arrange bottling of wines on site or at other premise
- may arrange local and export sales of wines

MUSEUM AND GALLERY CURATORS plan and organise museum and gallery collections. **CONSERVATORS** plan and organise the conservation of materials and objects in libraries, archives, museums, art galleries and other institutions. This occupation also includes Patents Examiners.

Tasks for these occupations include:

- Museum and Gallery Curators draft collection policies, arrange acquisitions and collect objects
- liaise with other curators to arrange special exhibitions
- identify and classify specimens or objects and arrange restoration work
- examine items or arrange examinations to determine condition and authenticity
- organise and prepare displays including travelling or loan exhibitions
- initiate and maintain research programmes
- supervise support staff and organise administrative duties associated with the use and care of collections
- may lecture and write about collections and answer public inquiries
- Conservators examine items to confirm and assess their identity, condition and authenticity
- analyse the causes and extent of deterioration and recommend remedial action
- implement and record conservation and restoration treatment
- advise on storage conditions, handling methods and the acquisition of materials and equipment
- assess collections and prepare reports of conservation plans and activities
- undertake research and develop techniques, procedures and standards for protection, treatment, restoration and preservation
- coordinate the activities of workers engaged in the repair, treatment, restoration and preservation of items
- Patents Examiners examine patent applications to assess compliance with the Australian Patents Act
- ensure patent applications do not infringe on previous patents
- search on-line databases to discover similar patents held in Australia and overseas
- grant patent rights for inventions based on new technology
- report findings to patent applicants or their legal representatives

RECREATION OFFICERS plan, organise and coordinate recreation facilities and programmes.

Tasks for this occupation include:

- study and analyse recreation needs and resources

- develop and implement recreation management policies on behalf of government and community service organisations
- encourage and assist in the implementation of recreation projects and programmes through existing organisations such as schools, church bodies and youth organisations
- interpret recreation policies and programmes and answer inquiries
- provide technical and professional advice to Urban Planners and others concerned with the provision of recreation facilities
- advise on requirements for, and procurement of, new equipment and materials, and on the design of new facilities
- prepare or assist with the preparation of budgets
- may recruit, train and supervise recreation or play leaders

Training Requirements

Entry to these occupations is generally through a bachelor degree or higher qualification or at least 5 years relevant experience. In some instances relevant experience is required in addition to the formal qualification.

Other Social Professionals

Description

HISTORIANS research the history of human activity and prepare accounts of findings.

Tasks for this occupation include:

- undertake research into the history of human activity
- assemble historical data by consulting sources of information such as historical indexes and catalogues, archives, court records, diaries, newspaper files
- organise and evaluate data on the basis of authenticity and significance
- prepare and present findings
- advise individuals, institutions and commercial organisations on historical matters
- assist with the establishment and supervision of museums and exhibitions
- may trace historical development within restricted fields of research such as economics, sociology or philosophy
- may prepare and deliver history lectures and conduct tutorials

INTERPRETERS and **TRANSLATORS** verbally translate spoken statements from one language into another and transcribe text or recorded verbal matter from one language into another.

Tasks for these occupations include:

- provide verbal translation of speeches into another language
- provide the meaning and feeling of what is said in courts, hospitals and schools into another language
- may provide verbal renditions of written texts
- study texts or recordings to understand the subject and convert them into another language to convey the original meaning
- consult dictionaries and other reference sources to determine accurate meanings of terms
- ensure that phraseology and terminology of legal, technical or scientific texts are correct
- ensure material is translated into another language in the appropriate register and style
- may specialise in particular languages, or in particular types of subject matter
- may revise translations to improve them
- may specialise in one or more languages and subject areas

SOCIAL SCIENCE PROFESSIONALS includes Anthropologists, Archaeologists, Prehistorians, Criminologists, Linguists, Political Scientists and Sociologists.

Tasks for these occupations include:

- Anthropologists gather and analyse data on social and cultural behaviour, artefacts, language and human biology of groups and societies
- Archaeologists and Prehistorians reconstruct cultures by studying material remains from archaeological excavations
- Criminologists examine the systems by which criminals are brought to justice and provide explanations for criminal behaviour
- Linguists study foreign languages and the social and cultural aspects of language
- Political Scientists study political systems and the functioning and behaviour of related institutions
- Sociologists study the development, structure, social patterns and inter-relationships of human societies

Training Requirements

INTERPRETERS and TRANSLATORS/ HISTORIANS

Entry to these occupations is generally through a bachelor degree or higher qualification.

SOCIAL SCIENCE PROFESSIONALS

Entry to this occupation is generally through a bachelor degree or higher qualification or at least 5 years relevant experience.

Other Wood Tradespersons

Description

PICTURE FRAMERS cut out and assemble mouldings to make picture frames, and frame paintings, photographs, needlework and other artwork.

Tasks for this occupation include:

- consult customers to determine style, size, materials and cost for frames
- cut frame pieces to size and prepare corner joints
- determine location, size and angle of holes to be drilled
- clamp pieces in vices and glue mitred ends
- fit and fasten frame pieces
- mount backing materials and subjects for framing
- butt mitres pieces of moulding
- may cut glass to size
- may fit prints, photographs or paintings to ready-made frames

FURNITURE FINISHERS finish, polish or refinish furniture.

Tasks for this occupation include:

- sand and smooth furniture surfaces
- mix stains by stirring in base colours to match colour or shade and apply to furniture
- apply varnish, shellac, lacquer or paint to surfaces
- polish and wax finished surfaces
- dismantle furniture, mask areas not being finished and remove accessories such as knobs and hinges to prepare articles for refinishing
- strip old finishes with steel wool or glasspaper, or apply solvents or paint strippers and remove softened finishes by scraping
- remove excess solvent and indentations
- may hand polish and restore antique furniture

WOOD MODEL MAKERS construct full size or scale models of production line items, such as machinery, vehicles, toys, furniture and household appliances. **CANE FURNITURE MAKERS** make furniture from cane and other decorative material.

Tasks for these occupations include:

- Wood Model Makers determine model requirements by examining drawings, drafts or samples and consulting with designers
- select stock, mark parts and determine layout
- operate woodworking machines to cut and shape parts for models
- fit parts together
- Cane Furniture Makers select cane rods and straighten them by hand
- cut rods to size and sand or splice ends
- wind cane around frame and join them using glue, nails or screws
- finish furniture with protective or decorative coating

Training Requirements

PICTURE FRAMERS/ FURNITURE FINISHERS

Entry to this occupation is generally through an AQF Certificate III or higher qualification.

WOOD MODEL MAKERS/ CANE FURNITURE MAKERS

Entry to these occupations is generally through an AQF Certificate III or higher qualification.

In some instances relevant experience is required in addition to the formal qualification.

Sea Transport Professionals

Description

SHIP'S MASTERS control and manage the operations of ships and boats.

Tasks for this occupation include:

- control, direct or manoeuvre ships and boats during berthing and mooring, navigational planning and emergencies
- ensure compliance with regulations pertaining to safety at sea and protection of the marine environment
- control and direct operations to ensure the safe and efficient loading and transport of cargo and passengers
- control the receipt and transmission of general and emergency information by radio, flags, Morse lighting and pyrotechnic communication
- ensure the security, safety, efficiency and economic operation of vessels
- manage and control fire hazard, abandon ship and damage control procedures
- manage and administer budgets and expenditure
- manage and maintain inventory, records and documentation
- devise and implement strategic and operational planning

SHIP'S ENGINEERS control and manage the operation and maintenance of plant and equipment of ships. **SHIP'S OFFICERS** navigate and control the safe operation of ships, and supervise and coordinate the activities of deck crew.

Tasks for these occupations include:

- Ship's Engineers plan, control and coordinate the operational and maintenance requirements of the ship's propulsion and domestic plant and equipment
- operate plant and equipment and perform routine maintenance on ship's systems
- stand engine room watch at sea and in port
- monitor machinery operation and record operating conditions
- coordinate tests on equipment and diagnose faults
- monitor stock requirements including consumables, spare parts and tools
- advise on operational or budget requirements for plant and equipment maintenance
- Ship's Officers navigate the ship by supervising the ship's course and speed according to passage plan and safety
- direct the activities of the deck crew for navigational support tasks, berthing and unberthing, maintenance, cleaning, and repair and replacement of defective deck gear and equipment
- prepare and maintain a ship's passage plan and daily activity record
- transmit and receive routine and emergency information with shore stations and other ships
- supervise the performance of safety drills and fire prevention and suppression activities, and ensure that fire fighting, life saving, medical and signalling equipment is ready for immediate use

MARINE SPECIALISTS survey machinery and hulls of ships to ensure they are constructed, equipped and maintained according to safety standards, rules and regulations or control fishing operations to catch and preserve fish, crustacea and molluscs.

Tasks for this occupation include:

- examine and approve design plans of hulls and equipment
- inspect standards of construction and witness tests of materials
- inspect hulls, machinery and equipment during construction to ensure standards are met
- conduct periodical surveys throughout the ship's life to ensure standards are maintained
- perform inspections required by domestic statutes and international conventions
- witness tests and operation of emergency and safety machinery and equipment

- measure ships for tonnage and survey them for load line assignment
- may attend court as an expert witness and assist in coronial inquiries
- direct fishing operations
- plot courses and compute positions using navigational aids
- operate navigational and fishing aids
- monitor and interpret weather patterns and obtain radio weather forecasts
- use nets, lines, poles, pots and traps to catch fish, molluscs and crustacea
- supervise and assist crew in fishing operations and sorting, cleaning, preserving, stowing and refrigerating the catch

Training Requirements

SHIP'S MASTERS

Entry requirement to this occupation is commensurate with an AQF Diploma or higher qualification and relevant experience in addition to the formal qualification.

SHIP'S ENGINEERS/ SHIP'S OFFICERS/ MARINE SPECIALISTS

Entry to this occupation is generally through a bachelor degree or higher qualification and relevant experience in addition to the formal qualification.

Special Care Workers

Description

CHILD AND YOUTH RESIDENTIAL CARERS provide care and supervision for children in correctional services institutions.

Tasks for these occupations include:

- wake children and ensure they are washed, dressed, fed and ready for educational and recreational activities
- organise and participate in educational and recreational activities
- supervise children during domestic activities such as eating meals and showering
- enforce behaviour standards, compile disciplinary reports and assist in implementing remedial measures
- may patrol centres, and lock or unlock doors
- may assist in serving meals or performing other housekeeping tasks

AGED AND DISABLED CARERS provide general household assistance, emotional support, care and companionship for aged or disabled people in their homes.

Tasks for these occupations include:

- accompany aged or disabled people during daily activities
- assist clients to move about
- prepare or present food
- arrange social activities
- perform housekeeping tasks
- assist in personal hygiene and dressing
- may do shopping and run errands
- may live in with the clients

HOSTEL AND REFUGE WORKERS oversee residential child care establishments which provide home environments for children and provide services and support to people seeking assistance in refuges.

Tasks for these occupations include:

- plan and implement programs of supervision and care for children
- supervise and arrange activities to enhance the physical, social, emotional and intellectual development of children
- wake children, and ensure that they wash, dress and develop hygienic living habits
- supervise domestic arrangements of children and develop their social skills
- prepare and lay out materials and equipment required in educational and recreational activities
- assist in teaching programs and counselling of children
- organise, lead and participate in recreational and other activities and outings
- maintain discipline and enforce regulations
- may cook and serve meals, clean premises, wash, iron and perform household tasks
- may order supplies, keep accounts and attend to administrative matters
- organise refuge accommodation
- provide emotional support to residents of refuges
- refer people to others for assistance
- ensure security of refuge

Training requirements

Entry to this occupation is generally through an AQF Certificate II or higher qualification or at least 1 year's relevant experience.