Singapore Standard Occupational Classification 2024 – Detailed Definitions (PDF Version)
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MAJOR GROUP 1 LEGISLATORS, SENIOR OFFICIALS AND MANAGERS

Occupation(s) in this Major Group are classified into the following Sub-major Group(s):

- 11 LEGISLATORS, SENIOR OFFICIALS AND CHIEF EXECUTIVES
- 12 ADMINISTRATIVE AND COMMERCIAL MANAGERS
- 13 PRODUCTION AND SPECIALISED SERVICES MANAGERS
- 14 HOSPITALITY, RETAIL AND RELATED SERVICES MANAGERS

Notes:

In distinguishing between managers classified in Major Group 1 'Legislators, Senior Officials and Managers' and supervisors classified in other major groups, it should be noted that both managers and supervisors may plan, organise, coordinate, control and direct the work done by others. In addition, managers usually have responsibility for and make decisions about: the overall strategic and operational direction of a business or organisational unit (for example about the kinds, quantity and quality of goods to be produced); budgets (how much money is to be spent and for what purposes); and the selection, appointment and dismissal of staff. Supervisors may provide advice and assistance to managers on these matters, especially in relation to staff selection and dismissal, but do not have authority to make decisions.

It should be noted that it is not a necessary condition that managers have responsibility for all three areas (strategic and operational direction, budgets and staff selection and dismissal). The degree of autonomy they exercise may also vary. The critical difference is that supervisors are responsible only for the supervision of the activities of other workers, whereas managers have overall responsibility for the operations of an organisational unit.

SUB-MAJOR GROUP 11 LEGISLATORS, SENIOR OFFICIALS AND CHIEF EXECUTIVES

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 111 LEGISLATORS AND SENIOR OFFICIALS
- 112 MANAGING DIRECTORS, CHIEF EXECUTIVES AND GENERAL MANAGERS

MINOR GROUP 111 LEGISLATORS AND SENIOR OFFICIALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1111 Legislators
- 1112 Senior Government and Statutory Board Officials
- 1114 Senior Officials of Political Party Organisations
- 1115 Senior Officials of Employers', Workers' and Related Economic-Interest Organisations
- 1116 Senior Officials of Humanitarian and Other Special-Interest Organisations

Unit Group 1111 Legislators

Legislators determine, formulate and direct government policies and make, ratify, amend or repeal laws, public rules and regulations. within a statutory or constitutional framework.

Tasks include:

- presiding over or participating in the proceedings of parliament
- determining, formulating and directing government policies
- making, ratifying, amending or repealing laws, public rules and regulations
- investigating matters of concern to the public and promoting the interests of the constituencies which they represent
- as members of the government, directing senior administrators and officials of government departments and statutory boards in the interpretation and implementation of government policies

Notes:

Legislators who are principally engaged in other full-time occupations are classified in the group appropriate to their main occupations and not here.

Occupation(s) in this Unit Group:

- 11110 Legislator

Occupation 11110 Legislator

Legislator determines, formulates and directs government policies. He/she makes, ratifies, amends or repeals laws, public rules and regulations within a statutory or constitutional framework.

Example(s) of job classified under this code:

- Attorney general (government)
- Minister (government)
- President (government)

Unit Group 1112 Senior Government and Statutory Board Officials

Senior government and statutory board officials advise governments on policy matters, and oversee the interpretation and implementation of government policies and legislation by government departments and agencies.

Tasks include:

- advising government and legislators on policy matters

- advising on the preparation of government budgets, laws and regulations, including amendments
- establishing objectives for government departments or statutory boards in accordance with government legislation and policy
- formulating or approving and evaluating programmes and procedures for the implementation of government policies in conjunction or consultation with government
- ensuring appropriate systems and procedures are developed and implemented to provide budgetary control
- coordinating activities with other senior government officials
- making presentations to legislative and other government committees regarding policies, programmes or budgets
- overseeing the interpretation and implementation of government policies and legislation by government departments and agencies

Notes:

Government employees who are seconded to manage government-owned or government-controlled industrial, commercial or other business enterprises are excluded and classified in the same group as managers of similar private establishments. Government employees performing mainly professional functions are classified in Major Group 2.

Occupation(s) in this Unit Group:

- 11121 Senior government official
- 11122 Senior statutory board official

Occupation 11121 Senior government official

Senior government official plans, organises and controls the activities of a government department, government administrative agency or intergovernmental organisation. He/she advises political leaders or governing body on important policy questions. He/she makes decisions within his/her broad discretionary power and performs other high-level functions in connection with government administration.

Example(s) of job classified under this code:

- Commissioner of police
- Director-general (government)
- High commissioner (government)
- Permanent secretary (government)

Example(s) of job not classified under this code:

- Police inspector, see 33551

Occupation 11122 Senior statutory board official

Senior statutory board official plans, organises and controls the activities of a statutory board or such fields of public administration as may be defined in the empowering legislation.

Example(s) of job classified under this code:

- Chairman (statutory board)
- Chief executive (statutory board)
- Managing director (statutory board)

Example(s) of job not classified under this code:

- Chief executive (company), see 11201
- Executive director (company), see 11201

Notes:

Senior statutory board official may be designated according to function performed in the organisation, for example chairman, chief executive or managing director.

Unit Group 1114 Senior Officials of Political Party Organisations

Senior officials of political party organisations determine, formulate and direct the implementation of policies of political party organisations.

Tasks include:

- determining and formulating the policies, rules and regulations of the organisation
- planning, directing and coordinating the general functioning of the organisation
- negotiating on behalf of the organisation, its members and clients
- promoting the interests of the organisation, its members and clients before the legislature, government or general public
- planning, organising and directing sections charged with implementing the organisation's policies, rules and regulations
- ensuring appropriate systems and procedures are developed and implemented to provide budgetary control

Occupation(s) in this Unit Group:

- 11140 Senior official of political party organisation

Occupation 11140 Senior official of political party organisation

Senior official of political party organisation determines, formulates and directs the implementation of policies of political party organisations.

Example(s) of job classified under this code:

- Administrator of political party organisation

Unit Group 1115 Senior Officials of Employers', Workers' and Related Economic-Interest Organisations

Senior officials of employers', workers' and related economic-interest organisations determine, formulate and direct the implementation of policies of employers', workers' and related economic-interest organisations.

Tasks include:

- determining and formulating the policies, rules and regulations of the organisation
- planning, directing and coordinating the general functioning of the organisation
- negotiating on behalf of the organisation, its members and clients
- promoting the interests of the organisation, its members and clients before the legislature, government or general public
- planning, organising and directing sections charged with implementing the organisation's policies, rules and regulations
- ensuring appropriate systems and procedures are developed and implemented to provide budgetary control

Occupation(s) in this Unit Group:

- 11150 Senior official of employers'/workers' and related economic-interest organisation

Occupation 11150 Senior official of employers'/workers' and related economic-interest organisation

Senior official of employers'/workers' and related economic-interest organisation determines, formulates and directs the implementation of policies of employers', workers' and related economic-interest organisations.

Example(s) of job classified under this code:

- Administrator of business association
- Administrator of employers' organisation
- Administrator of labour union
- Administrator of professional association
- Administrator of trade union

Unit Group 1116 Senior Officials of Humanitarian and Other Special-Interest Organisations

Senior officials of humanitarian and other special-interest organisations determine, formulate and direct the implementation of policies of humanitarian and other special-interest organisations, such as humanitarian or charitable organisations, or sports associations, and represent their organisations and act on their behalf.

Tasks include:

- determining and formulating the policies, rules and regulations of the organisation
- planning, directing and coordinating the general functioning of the organisation
- negotiating on behalf of the organisation, its members and clients
- promoting the interests of the organisation, its members and clients before the legislature, government or general public
- planning, organising and directing sections charged with implementing the organisation's policies, rules and regulations
- ensuring appropriate systems and procedures are developed and implemented to provide budgetary control

Occupation(s) in this Unit Group:

- 11160 Senior official of humanitarian and other special-interest organisation

Occupation 11160 Senior official of humanitarian and other special-interest organisation

Senior official of humanitarian and other special-interest organisation determines, formulates and directs the implementation of policies of humanitarian and other special-interest organisations, such as humanitarian or charitable organisations, or sports associations, and represents their organisations and act on their behalf.

Example(s) of job classified under this code:

- Senior official of humanitarian organisation

MINOR GROUP 112 MANAGING DIRECTORS, CHIEF EXECUTIVES AND GENERAL MANAGERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1120 Managing Directors, Chief Executives and General Managers

Unit Group 1120 Managing Directors, Chief Executives and General Managers

Managing directors, chief executives and general managers formulate and review the policies and plan, direct, coordinate and evaluate the overall activities of enterprises or organisations with the support of other managers.

Tasks include:

- planning, directing and coordinating the general functioning of an enterprise or organisation
- determining objectives, strategies, policies and programmes for the enterprise or organisation
- providing overall leadership and management to the enterprise or organisation
- establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources
- authorising material, human and financial resources to implement organisational policies and programmes
- monitoring and evaluating performance of the organisation or enterprise against established objectives and policies
- consulting with senior subordinate staff and reviewing recommendations and reports
- representing the organisation at official occasions and board meetings, in negotiations, at conventions, seminars, public hearings and forums
- ensuring the organisation complies with relevant legislation and regulations

Notes:

Regional managers and other senior managers who coordinate and supervise the activities of subordinate managers who have a diverse range of functional responsibilities are included in Unit Group 1120 'Managing Directors, Chief Executives and General Managers'.

Managers responsible for specialised functions within a specific geographic area are excluded from this unit group. For example, regional sales managers are classified in Unit Group 1221 'Sales and Business Development Managers'. Jobs whose principal responsibility is to participate as a member of the board of directors of one or more enterprises or organisations are included in Unit Group 1120 'Managing Directors, Chief Executives and General Managers'. Chief executives of government-owned enterprises are also included in this unit group.

Occupation(s) in this Unit Group:

- 11201 Managing director/Chief executive officer
- 11202 Company director
- 11203 Chief operating officer/General manager

Occupation 11201 Managing director/Chief executive officer

Managing director/Chief executive officer participates as member of board of directors to formulate and review the policies and plan, direct, coordinate and evaluate the overall activities of enterprises or organisations with the support of other managers.

Example(s) of job classified under this code:

- Chief executive (company)
- Executive director (company)

Example(s) of job not classified under this code:

- Chief executive (statutory board), see 11122

Occupation 11202 Company director

Company director participates as a member of one or more boards of directors in formulating policies governing the operations of a company or companies. The board and its members are responsible to the proprietors or shareholders for ensuring that policies formulated are implemented and progressively amended in the light of changing circumstances.

Example(s) of job classified under this code:

- Chairman (company)
- Member of a company's board of director

Notes:

Only those jobs where the principal responsibility is to participate as a member of the board of directors of one or more enterprises or organisations are included in this code.

Occupation 11203 Chief operating officer/General manager

Chief operating officer/General manager is the second in command of a company after the chief executive officer. He/she ensures that the daily operations of the company run smoothly and develops company policies, rules and goals.

Example(s) of job classified under this code:

- General manager (construction)
- General manager (manufacturing)
- General manager (service firm)

SUB-MAJOR GROUP 12 ADMINISTRATIVE AND COMMERCIAL MANAGERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 121 BUSINESS SERVICES AND ADMINISTRATION MANAGERS
- 122 SALES, MARKETING, DEVELOPMENT AND CUSTOMER SERVICE MANAGERS

Notes:

Specialised qualifications and extensive experience relevant to one or more occupations classified in Major Group 2 'Professionals' or Major Group 3 'Associate Professionals and Technicians' are usually required. Regional managers and other senior managers who coordinate and supervise the activities of subordinate managers who have a diverse range of functional responsibilities are included in Unit Group 1120 'Managing Directors, Chief Executives and General Managers'.

MINOR GROUP 121 BUSINESS SERVICES AND ADMINISTRATION MANAGERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1211 Finance and Administration Managers
- 1212 Human Resource Managers
- 1213 Policy and Planning Managers
- 1219 Business Services and Administration Managers Not Elsewhere Classified

Unit Group 1211 Finance and Administration Managers

Finance and administration managers plan, direct and coordinate the financial and administrative operations of an enterprise or organisation, in consultation with senior managers and with managers of other departments or sections.

Tasks include:

- planning, directing and coordinating the financial and administrative operations of an enterprise or organisation
- assessing the financial situation of the enterprise or organisation, preparing budgets and overseeing financial operations
- consulting with the chief executive and with managers of other departments or sections
- establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources
- establishing and directing operational and administrative procedures
- developing and implementing administrative and procedural statements and guidelines for use by staff in the organisation
- providing information and support for the preparation of financial reports and budgets
- representing the enterprise or organisation in dealings with outside bodies

Occupation(s) in this Unit Group:

- 12111 Budgeting/Financial accounting manager
- 12112 Administration manager
- 12113 Audit manager

Occupation 12111 Budgeting/Financial accounting manager

Budgeting/Financial accounting manager plans, organises and controls the financial operations of an organisation. He/she participates in formulating the financial policy of the organisation. He/she assesses the financial situation of the enterprise, consults the general manager and departmental managers on financial aspects of production, research and other programmes, presents budget proposals to the governing body or board of directors and advises on general financial questions such as the effective use of resources. He/she also controls and coordinates budgetary and accounting activities.

Example(s) of job classified under this code:

- Accounting manager (finance department)
- Budget manager
- Chief finance officer (CFO)
- Financial controller
- Finance director

Example(s) of job not classified under this code:

- Bank manager (branch), see 13461

Occupation 12112 Administration manager

Administration manager plans, organises and controls the internal administration of an organisation and participates in formulating its administrative policy, such as the organisation's needs for records, information, communication and other common services. He/she oversees the common services and coordinates departmental reporting and record-keeping systems, negotiates with suppliers of business services and other services. He/she may act as secretary to the board of directors or governing body. He/she may also, in non-profit-making organisations, have responsibility for maintaining membership records, ensuring that examination and registration regulations are observed.

Example(s) of job classified under this code:

- Administration director
- Corporate services manager

Occupation 12113 Audit manager

Audit manager oversees a portfolio of audit engagements or the internal audit of an organisation. He/she plans, organises and leads audit engagements. He/she reviews and provides technical expertise to ensure the quality of audit work performed is in compliance with professional standards and requirements. He/she establishes and reviews the internal audit plan, ensuring that internal audit goals and objectives are met.

Example(s) of job classified under this code:

- Audit director
- Internal audit manager

Unit Group 1212 Human Resource Managers

Human resource managers plan, direct and coordinate policies concerning the personnel and industrial relations of an enterprise or organisation, or of enterprises that provide human resource services to other enterprises and organisations.

Tasks include:

- planning, directing and coordinating the personnel and industrial relations activities, policies and practices of an enterprise or organisation
- planning and organising procedures for recruitment, training, promotion, determination of wage structures and negotiations about wages, liaison and consultation with workers and related personnel matters
- establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources
- establishing and directing operational and administrative procedures
- overseeing the development and implementation of management information systems
- ensuring compliance with standards and legislation relating to employees' rights, equal opportunity and related concerns
- overseeing the selection, training and performance of staff for the entire enterprise or organisation
- consulting with senior management and with managers of other departments
- representing the enterprise or organisation in dealings with outside bodies

Occupation(s) in this Unit Group:

- 12121 Personnel/Human resource manager
- 12122 Industrial relations manager
- 12123 Training manager

Occupation 12121 Personnel/Human resource manager

Personnel/Human resource manager plans, designs and implements processes related to the human capital of companies. He/she develops programmes for recruiting, interviewing, and selecting employees based on the profiles and skills required in the company. He/she manages compensation and development programmes for the company's employees comprising trainings, skill assessments and yearly evaluations, promotion, expatriate programmes, and general assurances of the well-being of the employees in the workplace.

Example(s) of job classified under this code:

- Chief human resource (HR) officer
- Personnel manager

Occupation 12122 Industrial relations manager

Industrial relations manager maintains relations between the management, its employees and all the entities connected with the organisations like customers, unions, governing agencies and stakeholders. He/she plans, organises and controls industrial relations and personnel activities of an organisation and participates in formulating the recruitment, training, wages, safety, welfare and other personnel policies of the organisation. He/she may represent the organisation before industrial arbitration courts or other labour tribunals and may also specialise in industrial relations work and be designated accordingly.

Example(s) of job classified under this code:

- Industrial relations director
- Labour relations manager

Occupation 12123 Training manager

Training manager plans, directs and coordinates the training and development activities of the staff of an organisation. He/she may also design and develop new training modules and supervise all the activities related to the planning and delivery of these programmes.

Example(s) of job classified under this code:

- Learning and development manager
- Training development director
- Workforce development programme director

Unit Group 1213 Policy and Planning Managers

Policy and planning managers plan, organise, direct and coordinate policy advice and strategic planning activities within government or for non-government organisations and private sector agencies, or manage the activities of enterprises that provide policy and strategic planning services.

Tasks include:

- developing, implementing and monitoring strategic plans, programmes, policies, processes, systems and procedures to achieve goals, objectives and work standards
- developing, directing, administering and participating in policy research and analysis
- coordinating the implementation of policies and practices
- establishing activity measures and measurements of accountability
- planning and directing daily operations
- leading and managing the activities of policy development and strategic planning staff
- representing the enterprise or organisation in negotiations, and at conventions, seminars, public hearings and forums
- establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources
- consulting with managers of other departments and with representatives of clients

Occupation(s) in this Unit Group:

- 12131 Policy manager
- 12132 Strategic planning manager
- 12133 Risk management manager

Occupation 12131 Policy manager

Policy manager formulates, develops, implements and evaluates policies to ensure that the strategic objectives of the organisation are met. He/she oversees the production of policy positions for the organisation in relation to policies, legislations and programmes, including in fields such as environmental, ethics, quality, transparency, sustainability and data protection.

Example(s) of job classified under this code:

- Government services policy manager
- Group data protection officer
- Policy and planning director

Occupation 12132 Strategic planning manager

Strategic planning manager plans, directs and coordinates the strategic initiatives of the organisation. He/she ensures consistency in the implementation of the strategic plans. He/she creates content and narration for presenting new business models, and designs strategic roadmaps for innovation and commercial activities. He/she helps to interpret the overall strategic plan and may create a detailed strategic plan for each one of the departments and branches.

Example(s) of job classified under this code:

- Corporate planning manager
- Strategic analysis director
- Strategic management director

Occupation 12133 Risk management manager

Risk management manager plans, organises, directs and coordinates the management of risk exposure and compliance policies in the organisation and its products. He/she develops and defines organisational policies, frameworks and strategies related to risks and compliance. He/she establishes risk criteria for compliance and oversees identification, monitoring, measurement and mitigation of operational and product-related risks.

Example(s) of job classified under this code:

- Business risk manager
- Product risk manager
- Risk management director

Unit Group 1219 Business Services and Administration Managers Not Elsewhere Classified

This unit group covers business services and administration managers not elsewhere classified.

Tasks include:

- providing operational support and advice to senior management on matters such as the management of building facilities
- providing information and support for the preparation of financial reports and budgets
- establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources
- planning and directing daily operations

Occupation(s) in this Unit Group:

- 12191 Premises/Facilities maintenance manager (excluding building security)
- 12192 Landscape manager
- 12193 Cleaning operations manager
- 12194 Security manager
- 12195 Intellectual property manager
- 12199 Other business services/administration manager n.e.c.

Occupation 12191 Premises/Facilities maintenance manager (excluding building security)

Premises/Facilities maintenance manager (excluding building security) plans, directs and coordinates operations and functionalities of facilities and buildings. He/she may oversee multiple facilities and grounds of an organisation.

Example(s) of job classified under this code:

- Estate manager
- Facilities management manager
- Property manager

Occupation 12192 Landscape manager

Landscape manager plans, directs and coordinates enhancement and implementation for softscapes and hardscapes. He/she ensures that the softscapes and hardscapes are enhanced or built to specifications. He/she may source for suitable plants that can fit and blend into the landscape.

Example(s) of job classified under this code:

- Landscape operations manager

Occupation 12193 Cleaning operations manager

Cleaning operations manager plans, directs and monitors the cleaning operations of the cleaning company or cleaning department. He/she oversees the management of resources on project sites. He/she develops cleaning operational plans and manages service contracts and incidents related to cleaning operations.

Example(s) of job classified under this code:

- Cleaning services manager
- Waste management operations manager

Occupation 12194 Security manager

Security manager leads and sets strategic directions for the security agency or security department. He/she plans, directs and monitors the security operations. He/she manages the resources of the security agency or security department. He/she may oversee response to incidents, design contingency plans and develop security plans for his/her customers.

Example(s) of job classified under this code:

- Building security manager

Example(s) of job not classified under this code:

- Safety/Security consultant, see 33394

Occupation 12195 Intellectual property manager

Intellectual property manager manages the organisation's intellectual property (IP) portfolio and identifies commercialisation opportunities that are beneficial to the organisation. He/she assesses risks, reviews IP due diligence activities, monitors IP infringements and coordinates any required prosecution and enforcement actions. He/she may also oversee IP prosecution portfolio.

Example(s) of job classified under this code:

- Patent manager
- Trade mark manager

Occupation 12199 Other business services/administration manager n.e.c.

This group covers other business services/administration manager not elsewhere classified.

Example(s) of job classified under this code:

- Corporate responsibility director
- Chief sustainability officer

MINOR GROUP 122 SALES, MARKETING, DEVELOPMENT AND CUSTOMER SERVICE MANAGERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1221 Sales and Business Development Managers
- 1222 Marketing, Advertising and Public Relations Managers
- 1223 Research and Development Managers
- 1224 Customer Service and Call Centre Managers

Unit Group 1221 Sales and Business Development Managers

Sales and business development managers plan, direct and coordinate the sales activities of an enterprise or organisation, or of enterprises that provide sales services to other enterprises and organisations.

Tasks include:

- planning and organising special sales and marketing programmes based on sales records and market assessments
- determining price lists, discount and delivery terms, sales promotion budgets, sales methods, special incentives and campaigns
- establishing and directing operational and administrative procedures related to sales activities
- leading and managing the activities of sales staff
- establishing and managing budgets and controlling expenditure to ensure the efficient use of resources
- representing the enterprise or organisation at sales and marketing conventions, and trade exhibitions

Occupation(s) in this Unit Group:

- 12211 Sales manager
- 12212 Business development manager
- 12213 Regional sales manager
- 12214 Merchandising/Category manager
- 12215 Online sales channel manager

Occupation 12211 Sales manager

Sales manager plans, directs and coordinates sales operations in an organisation. He/she analyses data, builds sales plans and sets sales targets and goals. He/she leads the development of sales strategies, expands sales channels and network. He/she may drive client relationships by managing sales related customer service.

Example(s) of job classified under this code:

- Key account manager (sales)
- Sales director

Example(s) of job not classified under this code:

- Online sales channel manager, see 12215
- Retail manager, see 14201

Occupation 12212 Business development manager

Business development manager conceptualises sales strategies and business plans. He/she may refer to data insights and analysis to make informed business decisions. He/she implements market expansion and new market plans for business growth. He/she prospects, develops relationships with potential customers and formulates new account development

strategies. He/she may manage the allocation of business resources, including manpower and internal assets of specific projects.

Example(s) of job classified under this code:

- Business intelligence director
- Chief commercial officer (CCO)
- Market development director

Occupation 12213 Regional sales manager

Regional sales manager plans, directs and coordinates sales operations in an organisation across multiple countries. He/she analyses data, builds sales plans and sets sales targets and goals for the sales territories. He/she leads the development of sales strategies, expands sales channels and network across multiple countries. He/she may drive client relationships by managing regional sales related customer service.

Example(s) of job classified under this code:

- Regional sales director

Occupation 12214 Merchandising/Category manager

Merchandising/Category manager oversees the implementation of merchandising strategies and defines the sales programme for specific product groups. He/she develops strategic partnerships, manages product assortment, drives product development and budget management. He/she may also review market and industry trends to drive appeal of merchandises to target customers.

Example(s) of job classified under this code:

- Merchandising director

Occupation 12215 Online sales channel manager

Online sales channel manager defines the sales programme for e-commerce, i.e. goods and services sold via e-mail, Internet and social media. He/she assists in planning of the online sales strategy and identifying marketing opportunities. He/she also analyses competitor sites, reviews the site performance and analytics.

Example(s) of job classified under this code:

- E-commerce director

Unit Group 1222 Marketing, Advertising and Public Relations Managers

Marketing, advertising and public relations managers plan, direct and coordinate the advertising, public relations, marketing and public information activities of enterprises and organisations, or of enterprises that provide related services to other enterprises and organisations.

Tasks include:

- planning, directing and coordinating the advertising, marketing and public relations activities of an enterprise or organisation
- negotiating advertising contracts with clients or with newspapers, radio and television stations, sports and cultural organisations and advertising agencies
- planning and managing information programmes to inform legislators, the mass media and the general public about the plans, accomplishments and points of view of the enterprise or organisation
- leading and managing the activities of advertising, marketing and public relations staff

Occupation(s) in this Unit Group:

- 12221 Advertising/Public relations manager
- 12222 Marketing manager

Occupation 12221 Advertising/Public relations manager

Advertising/Public relations manager plans, directs and coordinates the advertising, public relations and public information activities of enterprises and organisations, or of enterprises that provide related services to other enterprises and organisations.

Example(s) of job classified under this code:

- Corporate relations manager
- Public relations (PR) director

Occupation 12222 Marketing manager

Marketing manager plans, directs and coordinates marketing operations in an organisation. He/she drives the organisation's business strategies by setting direction for the organisation's marketing campaigns, brands, programmes and communication plans. He/she develops marketing strategies and plans by detailing cost and resources needed. He/she analyses the profitability of these plans, develops pricing strategies, and strives to raise awareness on products, brands, and companies among targeted customers.

Example(s) of job classified under this code:

- Chief marketing officer (CMO)
- Marketing director

Unit Group 1223 Research and Development Managers

Research and development managers plan, direct and coordinate the research and development activities of an enterprise or organisation or of enterprises that provide related services to other enterprises and organisations.

Tasks include:

- planning, directing and coordinating research and development activities, in-house or commissioned from external research organisations, to develop new or improved technical processes, products or utilisation of materials
- planning the overall research and development programme of an enterprise or organisation, specifying goals and budgetary requirements
- leading and managing the activities of research and development staff

Occupation(s) in this Unit Group:

- 12230 Research and development manager

Occupation 12230 Research and development manager

Research and development manager plans, directs and coordinates the research and development activities of an enterprise or organisation or of enterprises that provide related services to other enterprises and organisations. He/she may implement processes for innovation and intellectual property management, including technology incubation, licensing and contract management.

Example(s) of job classified under this code:

- Manufacturing research director
- Scientific research department manager
- Research and development (R&D) director

Unit Group 1224 Customer Service and Call Centre Managers

Customer service and call centre managers plan, organise and control the operations of call centres, review customer services, and maintain sound customer relations.

Tasks include:

- developing and reviewing policies, programmes and procedures concerning customer relations and goods and services provided
- ensuring operational efficiency within a call centre
- providing direction and feedback to team members and assisting with recruitment
- managing, motivating and developing staff providing customer services

- planning and implementing after-sales services to follow up with customer satisfaction, ensure performance of goods purchased, and modify and improve services provided
- liaising with other organisational units, service agents and customers to identify and respond to customer expectations

Occupation(s) in this Unit Group:

- 12241 Customer service manager
- 12242 Call centre manager

Occupation 12241 Customer service manager

Customer service manager oversees overall customer service excellence, develops process review and innovation frameworks, and implements initiatives to review the customer service process. He/she also manages the overall service quality and customer relationship management resources, including manpower, internal assets and external vendors. He/she investigates and solves customers' problems, which may be complex or long-standing problems that have been passed on by customer service assistants. He/she analyses statistics or other data to determine the level of customer service an organisation is providing.

Example(s) of job classified under this code:

- Guest relations manager

Occupation 12242 Call centre manager

Call centre manager plans, organises and controls the operations of call centres and maintains sound customer relations. He/she sets the objectives of the service per month, week, and day and manages the results obtained in the centre and addresses problems faced in the operations.

Example(s) of job classified under this code:

- Business call centre manager

SUB-MAJOR GROUP 13 PRODUCTION AND SPECIALISED SERVICES MANAGERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 131 PRODUCTION MANAGERS IN AGRICULTURE AND FISHERIES
- 132 MANUFACTURING, CONSTRUCTION, TRANSPORT, DISTRIBUTION AND RELATED PRODUCTION AND OPERATIONS MANAGERS
- 133 INFORMATION AND COMMUNICATIONS TECHNOLOGY SERVICE MANAGERS
- 134 PROFESSIONAL, FINANCIAL, COMMUNITY AND SOCIAL SERVICES MANAGERS

Notes:

Specialised qualifications and extensive experience relevant to one or more occupations classified in Major Group 2 'Professionals' or Major Group 3 'Associate Professionals and Technicians' are usually required. Regional managers and other senior managers who coordinate and supervise the activities of subordinate managers who have a diverse range of functional responsibilities are included in Unit Group 1120 'Managing Directors, Chief Executives and General Managers'.

MINOR GROUP 131 PRODUCTION MANAGERS IN AGRICULTURE AND FISHERIES

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1310 Production Managers in Agriculture and Fisheries

Unit Group 1310 Production Managers in Agriculture and Fisheries

Production managers in agriculture and fisheries plan, direct, and coordinate growing and production of crops and fish.

Tasks include:

- monitoring market activity and planning production to meet contract requirements and market demand
- establishing and managing budgets, monitoring production output and costs, recording information such as farm management practices and preparing financial and operational reports
- conferring with buyers to arrange for the sale of crops and fish
- contracting with farmers or independent owners for production of crops and livestock, or for management of production
- contracting with fishing skippers or owners of vessels and aquaculture farms for fishing and aquaculture operations, or for management of production
- planning the type, intensity and sequence of farm operations (e.g. determining the best times for planting, spraying and harvesting)
- analysing soil to determine types and quantities of fertiliser required for maximum production
- purchasing machinery, equipment, and supplies such as tractors, seed, fertiliser and chemicals
- identifying and controlling environmental toxins, weeds, pests and diseases
- organising farming operations such as maintaining buildings, water supply systems and equipment
- directing and coordinating activities such as planting, irrigation, chemical application, harvesting and grading
- directing and monitoring trapping and spawning of fish, egg incubation, and fry rearing, applying knowledge of management and fish culturing techniques

- inspecting plantations and fields to determine maturity dates of crops, or to estimate potential crop damage from weather
- overseeing the selection, training and performance of workers and contractors

Occupation(s) in this Unit Group:

- 13100 Production manager in agriculture/fisheries

Occupation 13100 Production manager in agriculture/fisheries

Production manager in agriculture/fisheries plans, directs, and coordinates growing and production of crops and fish.

Example(s) of job classified under this code:

- Farm manager
- Fishery manager
- Plant nursery manager

Example(s) of job not classified under this code:

- Farm supervisor (mushrooms), see 61110
- Landscape nursery supervisor, see 61131
- Poultry farm worker, see 61220
- Fish farm worker, see 62211
- Kelong fisherman, see 62220

MINOR GROUP 132 MANUFACTURING, CONSTRUCTION, TRANSPORT, DISTRIBUTION AND RELATED PRODUCTION AND OPERATIONS MANAGERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1321 Manufacturing Managers
- 1323 Construction Managers
- 1324 Transport, Supply, Distribution and Related Managers
- 1329 Production and Operations Managers Not Elsewhere Classified

Unit Group 1321 Manufacturing Managers

Manufacturing managers plan, direct and coordinate activities concerned with the production of goods, the production and distribution of electricity, gas and water, and the collection, treatment and

disposal of waste. They may manage the production departments of large enterprises or be the managers of small manufacturing companies.

Tasks include:

- determining, implementing and monitoring production strategies, policies and plans
- planning details of production activities in terms of output quality and quantity, cost, time available and labour requirements
- controlling the operation of production plant and quality procedures through planning of maintenance, designation of operating hours and supply of parts and tools
- establishing and managing budgets, monitoring production output and costs, and adjusting processes and resources to minimise costs
- consulting with and informing other managers about production matters
- overseeing the acquisition and installation of new plant and equipment
- controlling the preparation of production records and reports
- coordinating the implementation of occupational health and safety requirements
- identifying business opportunities and determining products to be manufactured
- researching and implementing regulatory and statutory requirements affecting manufacturing operations and the environment
- overseeing the provision of quotes for the manufacture of specialised goods and establishing contracts with customers and suppliers

Occupation(s) in this Unit Group:

- 13210 Manufacturing manager

Occupation 13210 Manufacturing manager

Manufacturing manager plans, directs and coordinates activities concerned with the production of goods, the production and distribution of electricity, gas and water, and the collection, treatment and disposal of waste. He/she may manage the production department of large enterprise or be the manager of small manufacturing company.

Example(s) of job classified under this code:

- Chemical production manager
- Electricity power plant manager
- Industrial production manager
- Manufacturing operations manager
- Waste recycling and recovery manager

Example(s) of job not classified under this code:

- Technical/Engineering services manager (excluding transport), see 13291
- Manufacturing engineer, see 21411
- Production engineer, see 21412

Unit Group 1323 Construction Managers

Construction managers plan, direct and coordinate the construction of civil engineering projects, buildings and dwellings.

Tasks include:

- negotiating with building owners, property developers and subcontractors involved in the construction process to ensure projects are completed on time and within budget
- preparing tenders and contract bids
- operating and implementing coordinated work programmes for sites
- ensuring adherence to building legislation and standards of performance, quality, cost and safety
- arranging submission of plans to local authorities
- building under contract, or subcontracting specialised building services
- arranging building inspections by relevant authorities
- establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources
- overseeing the selection, training and performance of staff and subcontractors

Occupation(s) in this Unit Group:

- 13230 Construction manager

Occupation 13230 Construction manager

Construction manager plans, directs and coordinates the construction of civil engineering projects, buildings and dwellings.

Example(s) of job classified under this code:

- Construction project manager
- Construction site manager

Example(s) of job not classified under this code:

- Building construction project engineer, see 21422

Unit Group 1324 Transport, Supply, Distribution and Related Managers

Transport, supply, distribution and related managers plan, direct and coordinate the supply, transportation, storage and distribution of goods.

Tasks include:

- determining, implementing and monitoring purchasing, storage and distribution strategies, policies and plans
- preparing and implementing plans to maintain required stock levels at minimum cost
- negotiating contracts with suppliers to meet quality, cost and delivery requirements
- monitoring and reviewing storage and inventory systems to meet supply requirements and control stock levels
- operating recording systems to track all movements of goods and ensuring re-ordering and re-stocking at optimal times
- liaising with other departments and customers concerning requirements for outward goods and associated forwarding transportation
- establishing and directing operational and administrative procedures

Notes:

Chief executives of major airports, railway companies, urban transit systems and other transportation corporations that have hierarchies of managers are included in Unit Group 1120 'Managing Directors, Chief Executives and General Managers'.

Occupation(s) in this Unit Group:

- 13241 Supply and distribution/Logistics/Warehousing manager
- 13242 Procurement/Purchasing manager
- 13243 Transport/Technical operations manager (excluding port and shipping operations)
- 13244 Postal service manager
- 13245 Port/Shipping operations manager

Occupation 13241 Supply and distribution/Logistics/Warehousing manager

Supply and distribution/Logistics/Warehousing manager plans, directs, or coordinates transportation, storage, or distribution activities in accordance with organisational policies and applicable government laws or regulations.

Example(s) of job classified under this code:

- Inventory management manager
- Logistics project manager
- Regional supply chain director

- Supply chain manager

Example(s) of job not classified under this code:

- Engineering and maintenance manager (excluding transport), see 13291
- Logistics solutions engineer, see 21499

Occupation 13242 Procurement/Purchasing manager

Procurement/Purchasing manager buys goods, equipment and services for the company while trying to ensure the most competitive prices. He/she negotiates contracts, reviews the quality of products and analyses the use and resale of goods and services.

Example(s) of job classified under this code:

- Merchandise purchasing director
- Strategic sourcing manager
- Supplies manager

Example(s) of job not classified under this code:

- Procurement engineer, see 21498

Occupation 13243 Transport/Technical operations manager (excluding port and shipping operations)

Transport/Technical operations manager (excluding port and shipping operations) plans, organises and controls operational activities on road, rail or air. He/she formulates policies to ensure the efficient handling of freight and passenger traffic. He/she assesses the adequacy of existing transport facilities and time schedule while devising or approving methods and procedures for operating freight and passenger services. He/she may also manage the provision of technical services internally or to customers and business partners to install, maintain and repair transport equipment and systems.

Example(s) of job classified under this code:

- Aerospace engineering service head
- Freight documentation manager (excluding port and shipping operations)
- Passenger traffic department manager

Example(s) of job not classified under this code:

- Technical/Engineering services manager (excluding transport), see 13291

Occupation 13244 Postal service manager

Postal service manager plans, organises, directs, controls and evaluates the activities and operations of postal facilities and courier service companies, or of operational divisions within courier service companies. He/she coordinates the duties of supervisors and other staff in addition to managing the accurate and expedient movement of mail and parcels through postal and parcel sorting facilities.

Example(s) of job classified under this code:

- Courier service manager
- Parcel processing plant manager

Occupation 13245 Port/Shipping operations manager

Port/Shipping operations manager oversees port, shipping and cargo operations. He/she oversees the rectification activities of equipment abnormalities and drives process improvement initiatives. He/she may provide advice to ships and management on cargo requirements, tank cleaning, stability and stress and maintain all statutory requirements for the ships.

Example(s) of job classified under this code:

- Sea traffic operations manager
- Ship management operations manager
- Water transport manager

Unit Group 1329 Production and Operations Managers Not Elsewhere Classified

This unit group covers production and operations managers not elsewhere classified.

Occupation(s) in this Unit Group:

- 13291 Technical/Engineering services manager (excluding transport)
- 13292 Quality control/assurance manager
- 13299 Other production/operations manager n.e.c.

Occupation 13291 Technical/Engineering services manager (excluding transport)

Technical/Engineering services manager (excluding transport) manages and deploys technical and engineering resources. He/she manages the provision of technical services internally or to customers and business partners to install, maintain and repair equipment and systems. He/she formulates strategies to ensure the technical competitiveness of the organisation's products in the market, and drives the engineering development of products. He/she may also provide technical expertise in troubleshooting technical issues in products or equipment.

Example(s) of job classified under this code:

- Engineering and maintenance manager (excluding transport)
- Industrial engineering department manager

Example(s) of job not classified under this code:

- Electricity power plant manager, see 13210
- Logistics project manager, see 13241
- Aerospace engineering service head, see 13243

Occupation 13292 Quality control/assurance manager

Quality control/assurance manager defines the quality assurance of the organisation and also ensures that the production or service standards meets regulatory requirements and end-user requirements. He/she manages the development and review of the organisation's quality system and Standard Operating Procedures (SOPs), with reference to the regulatory requirements, and ensures compliance. He/she may also ensure that system tests are completed, documented and all problems are resolved.

Example(s) of job classified under this code:

- Quality control director
- Quality control systems manager

Example(s) of job not classified under this code:

- Quality assurance engineer, see 21414

Occupation 13299 Other production/operations manager n.e.c.

This group covers other production/operations manager not elsewhere classified.

Example(s) of job classified under this code:

- Mining manager
- Oil well drilling manager

MINOR GROUP 133 INFORMATION AND COMMUNICATIONS TECHNOLOGY SERVICE MANAGERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1330 Information and Communications Technology Service Managers

Unit Group 1330 Information and Communications Technology Service Managers

Information and communications technology service managers plan, direct and coordinate the acquisition, development, maintenance and use of computer and telecommunication systems within organisations.

Tasks include:

- consulting with users, management, vendors, and technicians to assess computing needs and system requirements 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, analysing workflow, establishing priorities, developing standards and setting deadlines
- overseeing the security of ICT systems
- assigning, reviewing, managing and leading the work of systems analysts, programmers, and other computer-related workers
- establishing and directing operational and administrative procedures
- representing the enterprise or organisation at ICT related conventions, seminars and conferences

Occupation(s) in this Unit Group:

- 13301 Chief information officer/Chief technology officer/Chief information security officer
- 13302 Software and applications manager
- 13303 Network/Communications/Infrastructure manager
- 13304 ICT service manager
- 13305 Chief product officer
- 13306 ICT product design manager

Occupation 13301 Chief information officer/Chief technology officer/Chief information security officer

Chief information officer/Chief technology officer/Chief information security officer defines and implements the information and communication technology (ICT) strategy and governance. He/she determines the necessary resources for the ICT strategy implementation in addition to anticipating ICT market evolutions and company business needs.

Example(s) of job classified under this code:

- Computer and information systems manager
- Customer and logistics systems manager

- Information systems manager

Example(s) of job not classified under this code:

- Security operations specialist, see 25243

Occupation 13302 Software and applications manager

Software and applications manager oversees the acquisition and development of software systems in organisational units. He/she monitors the results and quality of the different software solutions and projects implemented in the organisation. He/she maintains oversight on the organisation's software deployment strategy, facilitates the seamless implementation and integration of software, and oversees the translation of business requirements to software development initiatives and projects.

Example(s) of job classified under this code:

- Application development manager
- Head of software engineering
- Information technology project manager (software and application)
- Software development manager

Occupation 13303 Network/Communications/Infrastructure manager

Network/Communications/Infrastructure manager drives the implementation of strategy for network and communications infrastructure operations and maintenance to ensure availability of stable and secure systems. He/she identifies problems and presents new methodologies and solutions to key stakeholders and also enhances and improves the delivery of infrastructure operations and maintenance services.

Example(s) of job classified under this code:

- Computer operations and network manager
- IT infrastructure manager
- Information technology project manager (network and communications)

Occupation 13304 ICT service manager

ICT service manager plans and directs the information processing activities of the organisation along with coordinating the effective design, implementation and operation of management information systems and applications. He/she oversees the maintenance and upgrading of support systems and conducts on-site training to promote efficient operations, and manages relationships with vendors, if applicable. He/she oversees incident resolution and business continuity plans.

Example(s) of job classified under this code:

- ICT operations and support manager
- ICT vendor relationship manager
- IT business solutions manager
- IT support manager

- Information technology project manager (IT service)

Occupation 13305 Chief product officer

Chief product officer defines product development vision and strategy. He/she oversees and drives the development and alignment of the product roadmap with the organisation's strategy and vision, and anticipates the impacts of external and internal business challenges and market conditions on the roadmap. He/she develops the go-to-market strategy for the products, oversees enhancements to product portfolios and the product development process. He/she establishes product branding strategies, marketing tactics, pricing and launch strategies. He/she guides development teams on issues related to product design, development and deployment, and guides the team to develop differentiated strategies across various lines of business.

Example(s) of job classified under this code:

- Head of product (ICT)

Occupation 13306 ICT product design manager

ICT product design manager drives the design strategies and development of product lifecycle, including end-to-end iterative design process. He/she establishes design policy principles and formulates design strategies to drive product development in the conceptualisation and design. He/she guides a team to align product design and concepts to market trends while considering product technologies and frameworks.

Example(s) of job classified under this code:

- Head of ICT product design

MINOR GROUP 134 PROFESSIONAL, FINANCIAL, COMMUNITY AND SOCIAL SERVICES MANAGERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1341 Preschool Education and Early Intervention Centre Managers
- 1342 Health Services Managers
- 1343 Aged Care Services Managers

- 1344 Community and Social Services Managers
- 1345 Education and Training Institution Managers
- 1346 Financial and Insurance Services Managers
- 1349 Professional, Financial, Community and Social Services Managers Not Elsewhere Classified

Notes:

Professional, financial, community and social services managers are responsible for planning, directing and coordinating the provision of specialised professional and technical services. Specialised qualifications and extensive experience relevant to one or more occupations classified in Major Group 2 'Professionals' or Major Group 3 'Associate Professionals and Technicians' are usually required.

Unit Group 1341 Preschool Education and Early Intervention Centre Managers

Preschool education and early intervention centre managers plan, direct, coordinate and evaluate the provision of care and education for children in preschools/early intervention centres.

Tasks include:

- overseeing and coordinating the provision of care and education for children in preschools/early intervention centres
- directing and supervising staff in providing care and education for young children
- managing physical facilities and making sure all buildings and equipment are maintained to ensure the centre is a safe area for children, staff and visitors
- reviewing and interpreting government codes and developing procedures to meet codes (e.g. concerning safety and security)
- preparing and maintaining records and accounts for a preschool/early intervention centre
- recruiting and evaluating staff and coordinating their professional development

Occupation(s) in this Unit Group:

- 13410 Preschool education/Early intervention centre manager

Occupation 13410 Preschool education/Early intervention centre manager

Preschool education/Early intervention centre manager plans, directs, coordinates and evaluates the provision of care and education for children in preschools/early intervention centres. He/she oversees the planning, implementation and monitoring of pedagogy and programmes for the centre.

Example(s) of job classified under this code:

- Child care services manager
- Early intervention centre manager

- Preschool centre leader
- Preschool education principal

Example(s) of job not classified under this code:

- Early intervention educator, see 23622
- Learning support educator, see 23622
- Beginning infant educator, see 36100
- Early years educator, see 36100
- Preschool educator, see 36100
- Child/After school care centre worker, see 53113

Unit Group 1342 Health Services Managers

Health services managers plan, direct, coordinate and evaluate the provision of clinical and community healthcare services in hospitals, clinics, public health agencies and similar organisations.

Tasks include:

- providing overall direction and management for the service, facility, organisation or centre
- directing, supervising and evaluating the work activities of medical, nursing, technical, clerical, service, maintenance, and other personnel
- establishing objectives and evaluative or operational criteria for units they manage
- developing, implementing and monitoring procedures, policies and standards for medical, nursing, technical and administrative staff
- monitoring the use of diagnostic services, inpatient beds, facilities, and staff to ensure effective use of resources and assess the need for additional staff, equipment, and services
- liaising with other health and welfare service providers, boards and funding bodies to coordinate the provision of services
- advising government bodies about measures to improve health and welfare services and facilities
- representing the organisation in negotiations, and at conventions, seminars, public hearings and forums

Occupation(s) in this Unit Group:

- 13420 Health services manager

Occupation 13420 Health services manager

Health services manager plans, directs, coordinates and evaluates the provision of clinical and community healthcare services in hospitals, clinics, public health agencies and similar organisations.

Example(s) of job classified under this code:

- Clinical director
- Healthcare operations manager
- Medical facility director

Example(s) of job not classified under this code:

- Aged care services manager, see 13430

Unit Group 1343 Aged Care Services Managers

Aged care services managers plan, direct, coordinate and evaluate the provision of residential and personal care services for individuals and families who are in need of such services due to the effects of ageing.

Tasks include:

- providing overall direction and management for a service, facility, organisation or centre
- directing, supervising and evaluating the work activities of medical, nursing, technical, clerical, service, maintenance and other personnel
- establishing objectives and evaluative or operational criteria for units they manage
- developing, implementing and monitoring procedures, policies and standards for nursing, personal care, technical, and administrative staff
- coordinating and administering welfare programmes and care services for the elderly
- controlling administrative operations such as budget planning, report preparation, expenditure on supplies, equipment and services
- liaising with other health and welfare providers, boards and funding bodies to coordinate the provision of services
- representing the organisation in negotiations, and at conventions, seminars, public hearings and forums

Occupation(s) in this Unit Group:

- 13430 Aged care services manager

Occupation 13430 Aged care services manager

Aged care services manager plans, directs, coordinates and evaluates the provision of residential and personal care services for individuals and families who are in need of such services due to the effects of ageing.

Example(s) of job classified under this code:

- Community aged care manager
- Nursing home director

Example(s) of job not classified under this code:

- Health services manager, see 13420

Unit Group 1344 Community and Social Services Managers

Community and social services managers plan, direct and coordinate the provision of social and community services programmes such as income support, family assistance, children's services and other community programmes and services.

Tasks include:

- providing overall direction and management for a service, facility, organisation or centre
- developing, implementing and monitoring procedures, policies and standards for staff
- monitoring and evaluating resources devoted to the provision of welfare, housing, and other social services
- controlling administrative operations such as budget planning, report preparation, expenditure on supplies, equipment and services
- liaising with other welfare and health services providers, boards and funding bodies to discuss areas of health and welfare services cooperation and coordination
- advising government bodies about measures to improve welfare services and facilities
- representing the organisation in negotiations and at conventions, seminars, public hearings and forums
- coordinating the volunteer activities of human services agencies, health care facilities and arts and sports organisations
- supervising social services support workers and volunteers

Occupation(s) in this Unit Group:

- 13441 Social services manager
- 13442 Volunteer manager

Occupation 13441 Social services manager

Social services manager plans, directs and coordinates the provision of social and community services programmes such as income support, family assistance, children's services and other community programmes and services. He/she also provides strategic direction and leadership to the organisation to ensure effective service delivery and operational efficiency.

Example(s) of job classified under this code:

- Social services centre manager
- Social services programme manager
- Youth programme director

Example(s) of job not classified under this code:

- Social worker (general), see 26621

Occupation 13442 Volunteer manager

Volunteer manager plans, directs, or coordinates the activities of a social services programme or community outreach organisation. He/she oversees the programme or organisation's budget and policies regarding participant involvement, programme requirements, and benefits.

Example(s) of job classified under this code:

- Volunteer administrator
- Volunteer management director

Example(s) of job not classified under this code:

- Volunteer executive, see 34123

Unit Group 1345 Education and Training Institution Managers

Education and training institution managers plan, direct, coordinate and evaluate the educational and administrative aspects of education and training services, primary and secondary schools, colleges and faculties and departments in universities and other educational/training institutions.

Tasks include:

- determining educational and training programmes based on frameworks established by education authorities and governing bodies
- implementing systems and procedures to monitor school/institutional performance and student enrolments
- directing administrative and clerical activities concerning student admissions and educational services

- providing leadership and guidance to teaching, academic and administrative staff as well as to student
- evaluating the work of teachers, lecturers and trainers by visiting classrooms, observing teaching methods, reviewing instructional objectives and examining learning materials
- promoting the educational/training programme and representing the service or institution in the wider community
- supervising the maintenance of educational/training facilities
- developing and enforcing a disciplinary code to create a safe and conducive environment for students and teachers/trainers
- controlling selection, training and supervision of staff

Occupation(s) in this Unit Group:

- 13451 School principal
- 13459 Education/Training institution manager n.e.c.

Occupation 13451 School principal

School principal plans, directs, coordinates and evaluates the educational and administrative aspects of education and training services, primary and secondary schools, colleges and faculties and departments in universities and other educational/training institutions. He/she provides overall leadership in various areas of the school including professional development, school administration and operations to ensure the provision of a holistic education for students.

Example(s) of job classified under this code:

- Primary school principal
- School vice principal
- Secondary school principal

Occupation 13459 Education/Training institution manager n.e.c.

This group covers education/training institution manager not elsewhere classified.

Example(s) of job classified under this code:

- Academic affairs director
- Dean (institute of higher learning)
- Registrar (institute of higher learning)
- School cluster superintendent
- Training institution head

Example(s) of job not classified under this code:

- University lecturer, see 23101
- Junior college teacher, see 23200
- Secondary school teacher, see 23400

Unit Group 1346 Financial and Insurance Services Managers

Financial and insurance services managers plan, direct and coordinate the provision of financial and insurance services in financial institutions, such as banks, building societies, credit unions and insurance companies. They provide advice and assistance to clients on financial and insurance matters.

Tasks include:

- planning, directing and coordinating the activities of staff in the branch
- establishing and maintaining relationships with individual and business customers
- providing advice and assistance to customers on their financial and insurance needs and with matters such as changes in law that may affect customers
- examining, evaluating and processing loan and insurance applications
- monitoring credit extension decisions
- conducting financial investigations
- overseeing the flow of cash and financial instruments, and the preparation of financial and regulatory reports
- approving or rejecting, or coordinating the approval or rejection of lines of credit commercial, real estate and personal loans
- coordinating cooperation with other branches of the company

Occupation(s) in this Unit Group:

- 13461 Financial services manager
- 13462 Insurance services manager
- 13463 Financial risk manager

Occupation 13461 Financial services manager

Financial services manager coordinates and oversees the operations of an institution or a branch of an institution that offers financial services. He/she leads the team of officers that provide financial services and run banking operations, related to wealth planning, trust administration, credit and lending, private/personal banking, commercial banking, etc.

Example(s) of job classified under this code:

- Bank manager (branch)
- Banking operations manager
- Mortgage manager
- Wealth relationship manager

Example(s) of job not classified under this code:

- Accounting manager (finance department), see 12111
- Financial controller, see 12111
- Financial/Investment adviser, see 24121
- Credit analyst, see 24131
- Financial analyst, see 24131
- Credit/Loans officer, see 33120
- Financial adviser (insurance), see 33211

Occupation 13462 Insurance services manager

Insurance services manager coordinates and oversees the operations of an institution or a branch of an institution that offers insurance services. He/she leads the team of officers providing insurance services, such as insurance advice, processing of insurance claims and underwriting of insurance.

Example(s) of job classified under this code:

- Insurance claims director
- Insurance sales manager
- Underwriting department manager

Example(s) of job not classified under this code:

- Insurance actuary, see 21213
- Insurance sales agent, see 33211

Occupation 13463 Financial risk manager

Financial risk manager plans, directs and coordinates the financial risk management activities of the organisation. He/she oversees the development and compliance of financial risk (e.g. credit risk, market risk, liquidity risk, etc.) management policies and strategies to meet the requirements of applicable regulations (including financial crimes) and organisational framework.

Example(s) of job classified under this code:

- Compliance manager (financial)
- Credit risk manager
- Financial risk management director

Unit Group 1349 Professional, Financial, Community and Social Services Managers Not Elsewhere Classified

This unit group covers professional, financial, community and social services managers not elsewhere classified.

Tasks include:

- providing overall direction and management for a service, facility, organisation or centre
- developing, implementing and monitoring procedures, policies and standards for staff
- directing, supervising and evaluating the work activities of professional technical, clerical, service, maintenance and other personnel
- monitoring and evaluating resources devoted to the provision of services
- controlling administrative operations such as budget planning, report preparation, expenditure on supplies, equipment and services
- planning, directing and coordinating the provision of services
- coordinating cooperation with other services provision agencies in the same or related fields

Notes:

Professional, financial, community and social services managers are responsible for planning, directing and coordinating the provision of specialised professional and technical services. Specialised qualifications and extensive experience relevant to one or more occupations classified in Major Group 2 'Professionals' or Major Group 3 'Associate Professionals and Technicians' are usually required.

Occupation(s) in this Unit Group:

- 13491 National security/Civil defence/Immigration managerial officer
- 13492 Community partnership/relations manager
- 13493 Media/Broadcast manager
- 13499 Other professional/financial/community/social services manager n.e.c.

Occupation 13491 National security/Civil defence/Immigration managerial officer

National security/Civil defence/Immigration managerial officer leads a department or division of police officers (including auxiliary police officers), fire-fighting and rescue officers or customs/immigration officers. He/she provides overall direction and management for his/her department or division. He/she manages manpower resources, maintains the professionalism

and discipline of his/her department or unit. He/she assesses and mitigates security risks, prepares operation orders, and oversees responses to incidents and emergencies.

Example(s) of job classified under this code:

- Immigration managerial officer
- Police superintendent
- Prison superintendent

Example(s) of job not classified under this code:

- Police inspector, see 33551

Occupation 13492 Community partnership/relations manager

Community partnership/relations manager plans, directs and coordinates activities to improve community relations. He/she may also raise issue awareness for his/her organisation's or client's causes.

Example(s) of job classified under this code:

- Community centre/club manager
- Community programme director

Occupation 13493 Media/Broadcast manager

Media/Broadcast manager plans, organises, directs, controls and evaluates operations, such as content localisation and commissioning, regulatory compliance, programme scheduling etc., within media production companies and broadcasting facilities.

Example(s) of job classified under this code:

- Film production manager
- Radio station operations director

Occupation 13499 Other professional/financial/community/social services manager n.e.c.

This group covers other professional/financial/community/social services manager not elsewhere classified.

Example(s) of job classified under this code:

- Language interpretation agency director
- Medical affairs director

SUB-MAJOR GROUP 14 HOSPITALITY, RETAIL AND RELATED SERVICES MANAGERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 141 HOTEL AND FOOD AND BEVERAGES SERVICES MANAGERS
- 142 RETAIL AND WHOLESALE TRADE MANAGERS
- 143 OTHER SERVICES MANAGERS

MINOR GROUP 141 HOTEL AND FOOD AND BEVERAGES SERVICES MANAGERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1411 Hotel Operations and Lodging Services Managers
- 1412 Food and Beverages Services Managers

Unit Group 1411 Hotel Operations and Lodging Services Managers

Hotel operations and lodging services managers plan, organise and direct the operations of hotels, motels and similar establishments to provide guest accommodation and other services.

Tasks include:

- directing and overseeing reservation, reception, room service and housekeeping activities
- supervising security arrangements and garden and property maintenance
- planning and supervising bar, restaurant, function and conference activities held in the hotel
- observing liquor, gaming and other laws and regulations
- assessing and reviewing customer satisfaction
- overseeing accounting and purchasing activities
- providing guests with local tourism information and arranging tours and transportation

Notes:

Operators of small establishments, such as some bed and breakfast establishments and small guest houses that provide accommodation and limited meal services to clients, and for whom the management and supervision of staff is not a significant component of the work, are classified in Unit Group 5150 ‘Housekeepers and Related Workers’.

Chief executive officers and specialised managers of hotel management companies or hotel chains are classified in the relevant unit group in Sub-major Groups 11 and 12.

Occupation(s) in this Unit Group:

- 14110 Hotel operations/Lodging services manager

Occupation 14110 Hotel operations/Lodging services manager

Hotel operations/Lodging services manager plans, directs and controls the organisation, administration and operation of departments, such as reception, housekeeping, purchasing and maintenance. He/she establishes and maintains standards of personnel performance and services to guests.

Example(s) of job classified under this code:

- Hotel front office manager
- Hotel reservations manager
- Youth hostel manager

Unit Group 1412 Food and Beverages Services Managers

Food and beverages services managers plan, organise and direct the operations of cafes, restaurants, catering companies and related establishments to provide dining and catering services.

Tasks include:

- planning menus in consultation with chefs and cooks
- planning and organising special functions
- arranging the purchasing and pricing of goods according to budget
- ensuring dining, kitchen and food storage facilities comply with health regulations and are clean, functional and of suitable appearance
- conferring with customers to assess their satisfaction with meals and service
- selecting, setting staff work schedules, training and supervising waiting and kitchen staff
- negotiating arrangements with clients and suppliers

Notes:

Operators of small cafes, restaurants and bars for whom the management and supervision of staff is not a significant component of the work are classified in Unit Groups 5120 ‘Cooks’, 5131 ‘Waiters’ or 5132 ‘Bartenders and Baristas’, depending on the main tasks performed.

Occupation(s) in this Unit Group:

- 14121 Restaurant manager
- 14122 Catering manager
- 14123 Food and beverage operations manager

Occupation 14121 Restaurant manager

Restaurant manager plans, organises and directs the operations of a restaurant to provide food and beverages to customers. He/she performs restaurant support functions, such as customer service, scheduling, handling day-to-day operations, cashiering, closing of the till, ordering and managing inventory, and back office support. He/she oversees the recruitment, training and motivation of staff, and maintains quality control, hygiene, and health and safety standards in the dining area. He/she manages inventories and interacts with customers, waiting staff and supports employees to ensure efficient operation. He/she may also analyse establishment's performance, review operational processes, develop and implement strategies to achieve sales targets or improve work practices/processes.

Example(s) of job classified under this code:

- Cafeteria manager
- Fast food restaurant manager
- Food outlet manager

Example(s) of job not classified under this code:

- Food services operations manager, see 14123

Occupation 14122 Catering manager

Catering manager plans, organises, coordinates and directs food and beverage catering operations. He/she arranges banqueting and other special functions. He/she formulates sales strategies and works out different sales tools to achieve revenue goals by attracting various targeted group of guests/customers.

Example(s) of job classified under this code:

- Catering director

Example(s) of job not classified under this code:

- Central kitchen manager, see 14123

Occupation 14123 Food and beverage operations manager

Food and beverage operations manager plans, organises, coordinates and directs food and beverage (F&B) operations, including those related to central kitchen. He/she creates and maintains Standard Operations Procedures (SOP) for the F&B business, including F&B administration and food safety and hygiene practices. He/she maintains brand standards and establishes the brand concept, management and strategy.

Example(s) of job classified under this code:

- Banquet director
- Central kitchen manager

- Food services operations manager

Example(s) of job not classified under this code:

- Restaurant manager, see 14121
- Catering manager, see 14122
- Chef (excluding pastry chef), see 34341

MINOR GROUP 142 RETAIL AND WHOLESALE TRADE MANAGERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1420 Retail and Wholesale Trade Managers

Unit Group 1420 Retail and Wholesale Trade Managers

Retail and wholesale trade managers plan, organise, coordinate and control the operations of establishments that sell goods on a retail or wholesale basis. They are responsible for the budgets, staffing and strategic and operational direction of shops, or of organisational units within shops that sell particular types of product.

Tasks include:

- determining product mix, stock levels and service standards
- formulating and implementing purchasing and marketing policies and setting prices
- promoting and advertising the establishment's goods and services
- maintaining records of stock levels and financial transactions
- undertaking budgeting for the establishment

Notes:

Retail and wholesale trade managers are frequently employed in relatively small establishments that do not have a hierarchy of managers. The managers of large retail establishments such as supermarkets and department stores, however, should generally also be classified in this group, although such establishments may have a hierarchy of managers and supervisors.

Chief executives of groups of establishments such as supermarket or departmental store chains are classified, however, in Unit Group 1120 'Managing Directors, Chief Executives and General Managers'.

Operators of small shops for whom the management and supervision of staff is not a significant component of the work and staff who control and direct the activities of shop sales assistants, checkout operators and other workers, but who do not take responsibility for determining product mix, overall setting of prices, budgets and staffing levels, selection and recruitment, are classified in Unit Group 5220 'Shop and Store Salespersons'.

Occupation(s) in this Unit Group:

- 14201 Retail manager
- 14202 Wholesale trade manager

Occupation 14201 Retail manager

Retail manager plans, organises, coordinates and controls the operations of establishments that sell goods on a retail basis. He/she oversees the budgets, staffing, and strategic and operational direction of retail shops.

Example(s) of job classified under this code:

- Chain store manager
- Departmental store manager
- Mail order store manager
- Retail operations manager

Example(s) of job not classified under this code:

- Sales manager, see 12211
- Sales supervisor, see 52201
- Shop assistant, see 52202

Occupation 14202 Wholesale trade manager

Wholesale trade manager plans, organises, coordinates and controls the operations of establishments that sell goods on a wholesale basis. He/she oversees the budgets, staffing, and strategic and operational direction of wholesale shops.

Example(s) of job classified under this code:

- Wholesale trade director

Example(s) of job not classified under this code:

- Showroom supervisor (wholesale trade), see 52201
- Wholesale trade salesman, see 52202

MINOR GROUP 143 OTHER SERVICES MANAGERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 1431 Sports Centre Managers
- 1432 Recreation Centre Managers
- 1433 Arts and Cultural Centre Managers

- 1439 Services Managers Not Elsewhere Classified

Unit Group 1431 Sports Centre Managers

Sports centre managers plan, organise and control the operations of establishments that provide sporting services.

Tasks include:

- planning and organising the range and mix of sports and fitness programmes to be offered by the centre
- ensuring that facilities are kept clean and in good condition
- advising on the facilities available and promoting publicity in relation to events, shows and activities
- establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources for sports activities

Occupation(s) in this Unit Group:

- 14310 Sports centre manager

Occupation 14310 Sports centre manager

Sports centre manager plans, organises and controls the operations of establishments that provide sporting services.

Example(s) of job classified under this code:

- Fitness centre manager
- Sport hall manager
- Swimming pool manager

Unit Group 1432 Recreation Centre Managers

Recreation centre managers plan, organise and control the operations of establishments that provide recreational and amenity services.

Tasks include:

- planning and organising the range and mix of entertainment programmes to be offered by the recreation centre
- ensuring that facilities are kept clean and in good condition
- advising on the facilities available and promoting publicity in relation to events, shows and activities

Occupation(s) in this Unit Group:

- 14321 Casino operations manager
- 14322 Attractions manager
- 14323 Discotheque/Karaoke/Nightclub manager
- 14324 Wellness centre manager
- 14325 Country club manager
- 14329 Recreation centre manager n.e.c.

Occupation 14321 Casino operations manager

Casino operations manager oversees the day-to-day operations of gaming facilities. He/she ensures that all gaming rules are followed, and monitors compliance with regulatory requirements.

Example(s) of job classified under this code:

- Gaming director
- Sports betting manager

Occupation 14322 Attractions manager

Attractions manager plans, directs and manages the operations of places of interest, such as theme parks, nature parks, monuments and public places. He/she maintains and develops the attractions in accordance with strategic plan, nature conservation objectives, individual site management plans. He/she may manage outreach programmes to create greater public awareness of the attractions.

Example(s) of job classified under this code:

- Arcade manager
- Park manager
- Theme park director
- Zoo manager

Example(s) of job not classified under this code:

- Art gallery manager, see 14330
- Museum manager, see 14330
- Attractions guide, see 51132

Occupation 14323 Discotheque/Karaoke/Nightclub manager

Discotheque/Karaoke/Nightclub manager plans and organises a bar and/or nightclub on behalf of the proprietors to provide beverages and entertainment for guests. He/she directs and controls staff to ensure efficient and profitable operation.

Occupation 14324 Wellness centre manager

Wellness centre manager oversees the daily operations and staff management in a wellness centre. He/she ensures customer satisfaction, budget control and inventory management.

Example(s) of job classified under this code:

- Beauty parlour director
- Hair salon manager
- Massage centre manager
- Nail salon manager
- Slimming centre manager

Occupation 14325 Country club manager

Country club manager ensures the entire facility is sanitary according to accepted standards and that all equipment are in good working condition. He/she sets long-term goals for overall business improvement; as well as plans, develops, and executes programmes for his/her patrons.

Example(s) of job classified under this code:

- Marina club manager

Occupation 14329 Recreation centre manager n.e.c.

This group covers recreation centre manager not elsewhere classified.

Example(s) of job classified under this code:

- Cinema manager
- Library manager

Unit Group 1433 Arts and Cultural Centre Managers

Arts and cultural centre managers plan, organise and control the operations of establishments that provide artistic and theatrical services.

Tasks include:

- planning and organising the range and mix of entertainment, attractions and cultural activities programmes to be offered by the centre
- ensuring that facilities are kept clean and in good condition
- keeping abreast of new trends and developments in the creative arts and arranging theatrical productions and performances by bands and orchestras
- advising on the facilities available and promoting publicity in relation to events, shows and activities

Occupation(s) in this Unit Group:

- 14330 Arts/Cultural centre manager

Occupation 14330 Arts/Cultural centre manager

Arts/Cultural centre manager plans, organises and controls the operations of establishments that provide artistic and theatrical services.

Example(s) of job classified under this code:

- Art gallery manager
- Arts centre director
- Cultural facilities director
- Museum manager

Example(s) of job not classified under this code:

- Attractions manager, see 14322

Unit Group 1439 Services Managers Not Elsewhere Classified

This unit group covers services managers not elsewhere classified.

Tasks include:

- planning and organising the range and mix of services or activities provided
- ensuring that facilities are kept clean and in good condition
- establishing and managing budgets
- controlling expenditure and ensuring the efficient use of resources

Occupation(s) in this Unit Group:

- 14391 Event manager
- 14392 Travel agency manager

- 14399 Other services manager n.e.c.

Occupation 14391 Event manager

Event manager plans, directs and oversees venue operations and events such as festivals, conferences, ceremonies, cultural events, exhibitions, formal parties, concerts, or conventions.

Example(s) of job classified under this code:

- Director of events
- Event operations director
- Exhibition director
- Functions manager

Example(s) of job not classified under this code:

- Exhibition coordinator, see 33320
- Event planner, see 33320

Occupation 14392 Travel agency manager

Travel agency manager manages employees and activities of a travel agency. He/she organises, advertises and sells travel related products such as travel packages, air tickets and admission tickets to attractions.

Example(s) of job classified under this code:

- Tourism sales manager
- Travel sales manager

Example(s) of job not classified under this code:

- Travel consultant, see 42210

Occupation 14399 Other services manager n.e.c.

This group covers other services manager not elsewhere classified.

Example(s) of job classified under this code:

- Automotive repair shop manager
- Crematorium manager

MAJOR GROUP 2 PROFESSIONALS

Occupation(s) in this Major Group are classified into the following Sub-major Group(s):

- 21 SCIENCE AND ENGINEERING PROFESSIONALS
- 22 HEALTH PROFESSIONALS
- 23 TEACHING AND TRAINING PROFESSIONALS
- 24 BUSINESS AND ADMINISTRATION PROFESSIONALS
- 25 INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) PROFESSIONALS
- 26 LEGAL, SOCIAL, RELIGIOUS AND CULTURAL PROFESSIONALS

SUB-MAJOR GROUP 21 SCIENCE AND ENGINEERING PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 211 PHYSICAL AND EARTH SCIENCE PROFESSIONALS
- 212 MATHEMATICIANS, ACTUARIES, STATISTICIANS AND RELATED PROFESSIONALS
- 213 LIFE SCIENCE PROFESSIONALS
- 214 ENGINEERING PROFESSIONALS I
- 215 ENGINEERING PROFESSIONALS II (Cont'd)
- 216 ARCHITECTS, PLANNERS, SURVEYORS AND DESIGNERS
- 217 SHIP AND AIRCRAFT RELATED PROFESSIONALS

MINOR GROUP 211 PHYSICAL AND EARTH SCIENCE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2111 Physicists and Astronomers
- 2112 Meteorologists
- 2113 Chemists
- 2114 Geologists, Geophysicists and Related Physical Science Professionals

Unit Group 2111 Physicists and Astronomers

Physicists and astronomers conduct research, improve or develop concepts, theories and operational methods concerning matter, space, time, energy, forces and fields and the interrelationship between these physical phenomena. They apply scientific knowledge relating to physics and astronomy in industrial, medical, military or other fields.

Tasks include:

- conducting research and improving or developing concepts, theories, instrumentation, software and operational methods related to physics and astronomy
- conducting experiments, tests and analyses on the structure and properties of matter in such fields as mechanics, thermodynamics, electronics, communications, power generation and distribution, aerodynamics, optics and lasers, remote sensing, medicine, sonics, magnetism, and nuclear physics
- evaluating results of investigations and experiments and expressing conclusions, mainly using mathematical techniques and models
- applying principles, techniques and processes to develop or improve industrial, medical, military and other practical applications of the principles and techniques of physics or astronomy
- ensuring accurate measurement and characterisation of radiation doses delivered to patients in medical applications of nuclear technology
- testing, commissioning and evaluating equipment used in applications such as imaging, medical treatment and dosimetry
- advising and consulting with medical practitioners and other healthcare professionals in optimising the balance between the beneficial and deleterious effects of radiation
- observing, analysing and interpreting celestial phenomena and developing methods, numerical models and techniques to extend knowledge of such fields as navigation, satellite communication, space exploration, celestial bodies and cosmic radiation
- maintaining and developing standards and protocols for measurement of physical phenomena and for the use of nuclear technology in industrial and medical applications
- preparing scientific papers and reports

Occupation(s) in this Unit Group:

- 21110 Physicist/Astronomer

Occupation 21110 Physicist/Astronomer

Physicist/Astronomer conducts research, improves or develops concepts, theories and operational methods concerning matter, space, time, energy, forces and fields and the interrelationship between these physical phenomena. He/she applies scientific knowledge relating to physics and astronomy in industrial, medical, military or other fields.

Example(s) of job classified under this code:

- Aerodynamicist
- Electronics physicist
- Medical physicist
- Nuclear physicist

- Optics physicist

Example(s) of job not classified under this code:

- Geophysicist, see 21142
- Medical scientist, see 21346
- Aerodynamics engineer, see 21471
- Optical engineer, see 21497
- Nuclear power engineer, see 21499
- Electronics engineer, see 21521
- Nuclear medicine physician, see 22129
- Radiologist, see 22142
- Radiation oncologist, see 22149
- Diagnostic radiographer, see 22693

Notes:

While medical physicist is classified within this group, medical physicist is considered to be an integral part of the health workforce alongside occupations classified in Sub-major Group 22 'Health Professionals' and others classified in a number of other unit groups in Major Group 2 'Professionals'.

Unit Group 2112 Meteorologists

Meteorologists prepare short-term or long-term weather forecasts used in aviation, shipping, agriculture and other areas and for the information of the general public. They conduct research related to the composition, structure and dynamics of the atmosphere.

Tasks include:

- investigating direction and speed of air movements, pressures, temperatures, humidity, physical and chemical transformation of pollutants and other phenomena such as cloud formation and precipitation, electrical disturbances or solar radiation
- studying data collected from meteorological stations, radar and satellite imagery and computer model output to plot and forecast weather conditions
- preparing and reporting short-term or long-term weather maps, forecasts and warnings relating to atmospheric phenomena such as cyclones, storms and other hazards to life and property and disseminating information about atmospheric conditions through a variety of media including radio, television, print and the Internet
- conducting experiments in fog dispersal, cloud seeding, rain enhancement and other types of weather modification programmes

- developing and testing mathematical computer models of weather and climate for experimental or operational use
- participating in studies of the effect of weather on the environment
- analysing the impact of industrial projects and human activity on the climate and air quality and working with the social science, engineering and economic communities to develop appropriate mitigation strategies
- engaging in the design and development of new equipment and procedures for meteorological data collection, remote sensing, or for related applications
- conducting research on and improving or developing concepts, theories and operational methods related to the composition, structure and dynamics of the atmosphere
- preparing scientific papers and reports

Occupation(s) in this Unit Group:

- 21120 Meteorologist

Occupation 21120 Meteorologist

Meteorologist prepares short-term or long-term weather forecasts used in aviation, shipping, agriculture and other areas and for the information of the general public. He/she conducts research related to the composition, structure and dynamics of the atmosphere.

Example(s) of job classified under this code:

- Atmospheric scientist
- Climatologist
- Weather forecaster

Example(s) of job not classified under this code:

- Air pollution analyst, see 21339

Unit Group 2113 Chemists

Chemists conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to chemistry, to develop new knowledge or products and for quality and process control.

Tasks include:

- conducting research and improving or developing concepts, instruments, theories and operational methods related to chemistry
- conducting experiments, tests and analyses to investigate chemical composition and energy and chemical changes in various natural or synthetic substances, materials and products

- developing procedures for environmental control, quality control and various other procedures for manufacturers or users
- conducting programmes of sample and data collection and analysis to identify and quantify environmental toxicants
- participating in interdisciplinary research and development projects working with chemical engineers, biologists, microbiologists, agronomists, geologists or other professionals
- using micro-organisms to convert substances into new compounds
- determining ways to strengthen or combine materials or develop new materials
- reproducing and synthesising naturally occurring substances and creating new artificial substances
- preparing scientific papers and reports

Occupation(s) in this Unit Group:

- 21130 Chemist

Occupation 21130 Chemist

Chemist conducts research, improves or develops concepts, theories and operational methods, or applies scientific knowledge relating to chemistry, to develop new knowledge or products and for quality and process control.

Example(s) of job classified under this code:

- Food chemist
- Food toxicologist
- Metallurgical chemist
- Petroleum chemist
- Pharmaceutical chemist

Example(s) of job not classified under this code:

- Toxicologist, see 21341
- Biochemist, see 21343
- Chemical engineer (excluding petroleum and petrochemical), see 21451
- Chemical engineer (petroleum), see 21452
- Food technologist, see 21454
- Metallurgist, see 21460
- Glass technologist, see 21499
- Pharmacist (patient care), see 22621

Unit Group 2114 Geologists, Geophysicists and Related Physical Science Professionals

Geologists, geophysicists and related physical science professionals conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to geology and geophysics in such fields as oil, gas and mineral exploration and extraction, water conservation, civil engineering, telecommunications and navigation. They assess and mitigate the effects of development and waste disposal projects on the environment.

Tasks include:

- conducting research and improving or developing concepts, theories and operational methods related to geology and geophysics
- studying composition and structure of the Earth's crust, examining rocks, minerals, fossils and other materials, to determine processes affecting the development of the Earth, trace evolution of past life, establish nature and chronology of geological formations and assess their commercial applications
- interpreting research data and preparing geological reports, maps, charts and diagrams, reports and papers
- using various remote sensing programmes to investigate and measure seismic, gravitational, electrical, thermal, and magnetic forces affecting the Earth
- estimating weight, size and mass of the Earth and composition and structure of its interior, and studying the nature, activity and predictability of volcanoes, glaciers and earthquakes
- charting the Earth's magnetic field and applying this and other collected data for broadcasting, navigation and other purposes
- studying and measuring physical properties of seas and the atmosphere and their inter-relationship, such as the exchange of thermal energy
- locating and determining the nature and extent of oil, gas and mineral deposits using seismological, gravimetric, magnetic, electrical or radiometric methods
- identifying deposits of construction materials and determining their characteristics and suitability for use as concrete aggregates, road fill or other applications
- researching the movement, distribution and physical properties of ground and surface waters
- advising in areas such as waste management, route and site selection and the restoration of contaminated sites

Occupation(s) in this Unit Group:

- 21141 Geologist
- 21142 Geophysicist
- 21149 Geologist/Geophysicist and related physical science professional n.e.c.

Occupation 21141 Geologist

Geologist conducts research into the nature and history of the Earth's crust to increase scientific knowledge and to develop practical applications in such fields as mineral exploitation and civil engineering. He/she applies theoretical knowledge and research data to locate and assess the development potential of mineral, gas, and oil deposits and underground water resources, and applies geological knowledge to problems encountered in civil engineering projects such as construction of dams, bridges, tunnels and large buildings. He/she prepares geological maps and diagrams of regions studied, using aerial photographs where available.

Example(s) of job classified under this code:

- Geochemist
- Geological oceanographer
- Palaeontologist
- Petrologist
- Stratigrapher

Example(s) of job not classified under this code:

- Geophysical oceanographer, see 21142
- Mineralogist, see 21149
- Geotechnical engineer, see 21421
- Minerals engineer, see 21460

Occupation 21142 Geophysicist

Geophysicist conducts research into the physical nature of the Earth, including its atmosphere and hydrosphere, to increase scientific knowledge and to develop practical applications in such fields as radio communications, navigation, flood control, soil and water conservation, water supply and power, drainage and irrigation, volcanology and mineral exploration. He/she investigates and measures seismic, gravitational, electrical, thermal and magnetic forces affecting Earth and optical and acoustic phenomena in the atmosphere. He/she studies the structure of rock formations to locate mineral, gas and oil deposits using physical and electrical testing instruments such as seismograph and magnetometer.

Example(s) of job classified under this code:

- Geodesist
- Geophysical oceanographer
- Hydrologist
- Seismologist

Example(s) of job not classified under this code:

- Physicist, see 21110
- Geological oceanographer, see 21141

Occupation 21149 Geologist/Geophysicist and related physical science professional n.e.c.

This group covers geologist/geophysicist and related physical science professional not elsewhere classified.

Example(s) of job classified under this code:

- Mineralogist

Example(s) of job not classified under this code:

- Petrologist, see 21141
- Minerals engineer, see 21460

MINOR GROUP 212 MATHEMATICIANS, ACTUARIES, STATISTICIANS AND RELATED PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2121 Mathematicians, Operations Research Analysts and Actuaries
- 2122 Statisticians and Data Scientists
- 2123 Other Statistical, Mathematical and Actuarial Professionals

Unit Group 2121 Mathematicians, Operations Research Analysts and Actuaries

Mathematicians, operations research analysts and actuaries conduct research and improve or develop mathematical and actuarial concepts, theories and operational methods and techniques and advise on or engage in their practical application in such fields as engineering, business, social and other sciences.

Tasks include:

- studying, improving and developing mathematical and actuarial theories and techniques
- advising on or applying mathematical principles, models and techniques to a wide range of tasks in the fields of engineering, natural, social or life sciences
- conducting logical analyses of management problems, especially in terms of input-output effectiveness, and formulating mathematical models of each problem usually for programming and solution by computer
- designing and putting into operation pension schemes and life, health, social and other types of insurance systems

- preparing scientific papers and reports
- supervising the work of mathematical, operations research analysts and actuarial assistants

Occupation(s) in this Unit Group:

- 21211 Mathematician
- 21212 Operations research analyst
- 21213 Actuary

Occupation 21211 Mathematician

Mathematician applies mathematical principles and methods to solve problems. He/she researches on new or improved methods for the application of mathematical theory or analysis. He/she may act as the adviser or consultant on various applications of mathematical research.

Example(s) of job classified under this code:

- Algebraist
- Applied mathematics scientist
- Cryptanalyst

Example(s) of job not classified under this code:

- Operations research analyst, see 21212
- Actuary, see 21213
- Statistician, see 21221
- Statistical officer, see 21231
- Cryptography researcher, see 25112

Occupation 21212 Operations research analyst

Operations research analyst conducts quantitative analytics, data modelling and data analysis to address problems faced by organisations. He/she formulates mathematical models, assembles data relating to or representative of variables in the model, directs computations and other data preparation to test models and solve equations or for other business use cases. He/she prepares reports for management describing the solution to the problem and the alternative solutions. He/she may help with the deployment of quantitative models and guide others in the use of analytics to support business needs or analyse business products.

Example(s) of job classified under this code:

- Business intelligence consultant (non-IT)
- Business operations analyst

- ICT product analyst
- Intellectual property information analyst
- Quantitative strategist

Example(s) of job not classified under this code:

- Mathematician, see 21211

Intellectual property engineer, see 21495

- Business analyst, see 24212
- Systems analyst, see 25111
- ICT business analyst, see 25112

Occupation 21213 Actuary

Actuary deals with statistical, mathematical and financial calculations mainly involving the probability of future payments or contingencies in pension or insurance plans. He/she evaluates risks, calculates premium rates and constructs tables of probability for contingencies such as mortality, disability, sickness and accidents and prepares contract provisions of insurance and pension plans. He/she determines proper bases and methods for evaluating liabilities of insurance and pension organisations and equitable bases for distributing surplus earnings under profit-sharing insurance and annuity contracts.

Example(s) of job classified under this code:

- Actuarial consultant
- Insurance actuary

Example(s) of job not classified under this code:

- Insurance services manager, see 13462
- Mathematician, see 21211
- Statistician, see 21221
- Statistical officer, see 21231
- Actuarial officer, see 21239
- Insurance underwriter, see 24160
- Insurance adjuster, see 33152
- Statistical assistant, see 43141

Unit Group 2122 Statisticians and Data Scientists

Statisticians and data scientists conduct research and improve or develop statistical concepts, theories and operational methods and techniques and advise on or engage in their practical application in such fields as engineering, business and social and other sciences.

Tasks include:

- studying, improving and developing statistical theories and techniques
- applying statistics, probability and risk theory to assess potential financial impacts of future events
- planning and organising surveys and other statistical collections, and designing questionnaires
- evaluating, processing, analysing, and interpreting statistical data and preparing them for publication
- advising on or applying various data collection methods and statistical methods and techniques, and determining reliability of findings, especially in such fields as business or medicine as well as in other areas of natural, social or life sciences
- preparing scientific papers and reports, including those in the form of visualisations such as graphs, charts, and dashboards
- supervising the work of statistical assistants and statistical clerks

Occupation(s) in this Unit Group:

- 21221 Statistician
- 21222 Data scientist

Occupation 21221 Statistician

Statistician conducts research and improves or develops statistical concepts, theories and methods. He/she advises on the applicability and efficiency of statistical methods in their practical application in such fields as engineering, business and social and other sciences. He/she evaluates, organises, analyses and interprets data and presents them in forms suitable for users.

Example(s) of job classified under this code:

- Biometrician
- Economics statistician
- Survey statistician

Example(s) of job not classified under this code:

- Mathematician, see 21211
- Actuary, see 21213
- Data analyst, see 21231

- Statistical officer, see 21231
- Econometrician, see 26310
- Statistical assistant, see 43141

Occupation 21222 Data scientist

Data scientist develops and implements techniques and analytics applications to transform raw data into meaningful information using data-oriented programming languages and visualisation software. He/she applies data mining, data modelling, natural language processing, and machine learning to extract and analyse information from large structured and unstructured datasets. He/she also visualises, interprets, and reports data findings and may create dynamic data reports as well.

Example(s) of job classified under this code:

- Chief data scientist

Example(s) of job not classified under this code:

- Artificial intelligence (AI) applied researcher, see 25142
- Machine learning engineer, see 25143
- Data engineer, see 25213

Unit Group 2123 Other Statistical, Mathematical and Actuarial Professionals

Other statistical, mathematical and actuarial professionals assist in planning the collection, processing and presentation of statistical, mathematical or actuarial data and in carrying out these operations, usually working with statisticians, mathematicians and actuaries.

Tasks include:

- assisting in planning and performing statistical, mathematical, actuarial and related calculations
- preparing detailed estimates of quantities and costs of materials and labour required for statistical census and survey operations
- performing technical tasks connected with establishing, maintaining and using registers and sampling frames for census and survey operations
- performing technical tasks connected with data collection and quality control operations in censuses and surveys
- using standard computer software packages to perform mathematical, actuarial, statistical and related calculations
- preparing statistical, mathematical, actuarial and other results for presentation in graphical or tabular form

- applying knowledge of statistical, mathematical, actuarial and related principles and practices in order to identify and solve problems arising in the course of their work
- supervising the work of statistical clerks

Occupation(s) in this Unit Group:

- 21231 Statistical officer/Data analyst
- 21239 Other statistical/mathematical/actuarial professional n.e.c.

Occupation 21231 Statistical officer/Data analyst

Statistical officer/Data analyst performs technical tasks connected with data collection and quality control operations in census and survey operations. He/she collects, inspects, cleans, transforms, validates and models collections of data with regard to the requirements of the project. He/she performs mathematical, actuarial, statistical and related calculations using different IT tools and algorithms as demanded by the situation and data, and prepares these results in graphical or tabular form. He/she ensures that data sources and repositories provide consistent and reliable data.

Example(s) of job classified under this code:

- Data quality officer

Example(s) of job not classified under this code:

- Mathematician, see 21211
- Actuary, see 21213
- Statistician, see 21221
- Statistical assistant, see 43141

Occupation 21239 Other statistical/mathematical/actuarial professional n.e.c.

This group covers other statistical/mathematical/actuarial professional not elsewhere classified.

Example(s) of job classified under this code:

- Actuarial officer

Example(s) of job not classified under this code:

- Mathematician, see 21211
- Actuary, see 21213
- Statistician, see 21221
- Statistical assistant, see 43141

MINOR GROUP 213 LIFE SCIENCE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2131 Biologists, Botanists, Zoologists and Related Professionals
- 2132 Farming, Forestry and Fishery Advisers
- 2133 Environmental Protection and Related Professionals
- 2134 Pharmacologists and Related Professionals

Unit Group 2131 Biologists, Botanists, Zoologists and Related Professionals

Biologists, botanists, zoologists and related professionals study living organisms and their interactions with each other and with the environment, and apply this knowledge to solve human health and environmental problems. They work in diverse fields such as biology, botany, zoology, plant taxonomy and marine biology.

Tasks include:

- undertaking research in laboratories and in the field to increase scientific knowledge of living organisms
- designing and conducting experiments and tests to discover new information and test hypotheses
- gathering human, animal, insect and plant specimens and data, and studying their origin, development, chemical and physical form, structure, composition, and life and reproductive processes
- examining living organisms using a variety of specialised equipment, instruments, technologies and techniques such as electron microscopes, telemetry, global positioning systems, biotechnology, satellite imaging, genetic engineering, digital imaging analysis, polymerase chain reaction and computer modelling
- identifying, classifying, recording and monitoring living organisms and maintaining databases
- writing scientific papers and reports detailing research and new findings which are made available to the scientific community in scientific journals or at conferences for scrutiny and further debate

Notes:

Medical research professionals who participate in biomedical research using living organisms and do not engage in clinical practice are classified in this unit group. Those who undertake clinical practice are classified in Minor Group 221 ‘Medical Doctors’.

Occupation(s) in this Unit Group:

- 21311 Biologist
- 21312 Zoologist
- 21319 Biologist/Botanist/Zoologist and related professional n.e.c.

Occupation 21311 Biologist

Biologist conducts research into all forms of life to increase scientific knowledge and develop practical applications in fields such as medicine and agriculture. He/she plans field and laboratory studies of origin, development, functions, structure, distribution, environment, interrelationships and other aspects of life-forms, and observes characteristics and behaviour of life-forms. He/she identifies, classifies and preserves specimens, studies and experiments with biological specimens in laboratories. He/she coordinates, analyses and evaluates results obtained and prepares scientific reports of the findings and conclusions.

Example(s) of job classified under this code:

- Biology biotechnologist
- Biology research scientist

Example(s) of job not classified under this code:

- Hydrobiologist, see 21319
- Marine biologist, see 21319
- Microbiologist, see 21319
- Ecologist, see 21332
- Pharmacologist, see 21341
- Biochemist, see 21343
- Medical geneticist, see 21346
- Bacteriologist, see 21349

Occupation 21312 Zoologist

Zoologist conducts research into all forms of animal life to increase scientific knowledge. He/she may specialise in a particular branch of zoology, such as entomology, ornithology or animal ecology, marine biology and fisheries, and be designated accordingly.

Example(s) of job classified under this code:

- Animal physiologist
- Animal taxonomist

Example(s) of job not classified under this code:

- Animal scientist, see 21345

Occupation 21319 Biologist/Botanist/Zoologist and related professional n.e.c.

This group covers biologist/botanist/zoologist and related professional not elsewhere classified.

Example(s) of job classified under this code:

- Hydrobiologist
- Marine biologist
- Microbiologist
- Plant taxonomist
- Soil botanist

Example(s) of job not classified under this code:

- Biologist, see 21311
- Plant geneticist, see 21329
- Soil scientist, see 21329

Unit Group 2132 Farming, Forestry and Fishery Advisers

Farming, forestry and fishery advisers study and provide assistance and advice on farm, forestry and fishery management, including cultivation, fertilisation, harvesting, soil erosion and composition, disease prevention, nutrition, crop rotation and marketing. They develop techniques for increasing productivity, and study and develop plans and policies for land and fishery management.

Tasks include:

- collecting and analysing data and samples related to produce, feed soil, water quality and other production options
- advising on techniques for improving the production of crops, livestock and fish, and alternative production options
- advising on livestock and crop disease, control of pests and weeds, soil improvement, animal husbandry and feeding programmes
- studying the environmental factors affecting commercial crop production, pasture growth, animal breeding, fish stocks and the growth and health of forest trees
- studying the effects of cultivation techniques, soils, insects, diseases and fisheries' practices on animal, crop, forestry and fisheries' yield
- studying fish migration, growth, feeding and spawning and devising methods of collecting fertilising, incubating and hatching fish eggs
- researching into characteristics, use capability and productivity of soils and applying findings to development of improved agricultural, horticultural and forestry practices

- developing procedures and techniques for solving agricultural problems and improving the efficiency of production
- managing forest and fisheries' resources to maximise their long-term commercial, recreational and environmental benefits
- studying the propagation and culture of forest trees, methods for improving the growth of stock, and the effects of thinning on forest yields
- investigating, planning and implementing management procedures to cope with the effects of fires, floods, droughts, soil erosion, pests and diseases
- preparing scientific reports and conducting advisory information sessions and lectures for farming, forestry and fishing communities and other groups

Occupation(s) in this Unit Group:

- 21321 Horticulturist/Arborist
- 21322 Aquaculturist
- 21323 Agriculturist
- 21329 Farming/Forestry/Fishery adviser n.e.c.

Occupation 21321 Horticulturist/Arborist

Horticulturist/Arborist conducts research into horticultural crops and develops new and improved production methods. He/she performs experiments to improve plant growth, resistance to diseases and insect pests, adaptability to different soils or climates, yields, quality of harvest, etc. He/she studies planting, cultivating and harvesting methods and effects of rotation, drainage, irrigation and climatic conditions and develops improved methods of storage, transportation and processing of horticultural products. He/she advises farmers on selection of horticultural crops and methods of production.

Example(s) of job classified under this code:

- Arboricultural consultant

Example(s) of job not classified under this code:

- Agronomist, see 21329
- Horticultural technician, see 31421

Occupation 21322 Aquaculturist

Aquaculturist specialises in the practice of aquaculture, which involves the cultivation and farming of aquatic organisms (includes fin fish, crustaceans, shellfish) for various purposes, such as food production, research and environmental management. He/she can be responsible for managing and overseeing the aquaculture operation which includes tasks such as selection of suitable species, farming system design, water quality management, fish

nutrition, and disease prevention and control. He/she can also be involved in aquaculture research and technology development, in various research areas like fish genetics and brood stock development for desirable traits (growth, disease resistance, etc.), nutrition involving feed formulation for different species, aquaculture systems, vaccines, farm automation, and environmental monitoring and management.

Example(s) of job classified under this code:

- Aquaculture research scientist
- Aquaculture specialist

Example(s) of job not classified under this code:

- Aquaculture technician, see 31423
- Fish farm worker, see 62211

Occupation 21323 Agriculturist

Agriculturist manages the execution of daily farm operations, involving seedlings propagation, harvesting, and post-harvest activities in accordance with production schedule. He/she helps to achieve productivity objectives and targets in a sustainable manner. He/she is responsible for food crop health management (to enhance quality and yield of the food crop production) and to ensure a smooth operation of farming facility, equipment and machinery in compliance with prevailing regulations on agricultural practices and food/workplace safety standards.

Example(s) of job classified under this code:

- Agricultural consultant
- Farming advisor

Example(s) of job not classified under this code:

- Agronomist, see 21329
- Farming technician (animal production), see 31423

Occupation 21329 Farming/Forestry/Fishery adviser n.e.c.

This group covers farming/forestry/fishery adviser not elsewhere classified.

Example(s) of job classified under this code:

- Agronomist
- Forestry adviser
- Plant geneticist
- Soil scientist

- Urban forester

Example(s) of job not classified under this code:

- Plant taxonomist, see 21319
- Soil botanist, see 21319
- Horticulturist, see 21321
- Aquaculturist, see 21322
- Agriculturist, see 21323
- Soil mechanics engineer, see 21421

Unit Group 2133 Environmental Protection and Related Professionals

Environmental protection and related professionals study and assess the effects on the environment of human activity such as air, water and noise pollution, soil contamination, climate change, toxic waste and depletion and degradation of natural resources. They develop plans and solutions to protect, conserve, restore, minimise and prevent further damage to the environment.

Tasks include:

- conducting research, performing tests, collecting samples, performing field and laboratory analysis to identify sources of environmental problems and recommending ways to prevent, control and remediate the impact of environmental problems
- assessing the likely impact that potential or proposed activities, projects and developments may have on the environment, and recommending whether such developments should proceed
- developing and coordinating the implementation of environmental management systems to enable organisations to identify, monitor and control the impact of their activities, products and services on the environment
- conducting audits to evaluate environmental impact of existing activities, processes, wastes, noise and substances
- assessing an organisation's compliance with government and internal environmental regulations and guidelines, identifying violations and determining appropriate remedial action
- providing technical advice and support services to organisations on how best to deal with environmental problems in order to reduce environmental damage and minimise financial loss
- developing environmental and resource conservation plans

Occupation(s) in this Unit Group:

- 21331 Environmental officer (environmental protection)
- 21332 Environment research scientist
- 21333 Environmental analyst

- 21339 Environmental protection and related professional n.e.c.

Occupation 21331 Environmental officer (environmental protection)

Environmental officer (environmental protection) identifies, assesses and advises on ways to prevent, control and remediate the impact of environmental problems. He/she formulates environmental protection policies and procedures and implements advanced environmental protection policies and procedures. He/she reviews environmentally friendly trends in industry for implementation and develops measures to enhance organisational awareness of environmental protection.

Example(s) of job classified under this code:

- Environmental impact analyst
- Environmental programme coordinator

Example(s) of job not classified under this code:

- Environmental auditor, see 21333
- Environmental engineer, see 21430
- Occupational health professional, see 22631
- Environmental officer (public health), see 22632
- Environmental inspector (environmental public health), see 32571

Occupation 21332 Environment research scientist

Environment research scientist conducts research or performs investigations for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or public health. He/she uses knowledge of various scientific disciplines and may collect, synthesise, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources.

Example(s) of job classified under this code:

- Conservationist scientist
- Ecologist
- Environmental toxicologist

Example(s) of job not classified under this code:

- Biologist, see 21311
- Toxicologist, see 21341

Occupation 21333 Environmental analyst

Environmental analyst conducts on-site and/or remote assessments to ensure that environmental projects are compliant to and meet national/international standard's methodology requirements and regulations, and those of independent assessors. He/she may prepare reports and review findings with the organization or client. He/she may also gather data reported from monitoring, reporting and verification (MRV) systems, including the use of technology (e.g. digital, geospatial), and determine the accuracy of claims on emission reduction and other environmental benefits.

Example(s) of job classified under this code:

- Carbon rating analyst
- Carbon verification and audit specialist
- Environmental auditor
- Environmental compliance officer

Example(s) of job not classified under this code:

- Environmental impact analyst, see 21331
- Environmental engineer, see 21430

Occupation 21339 Environmental protection and related professional n.e.c.

This group covers environmental protection and related professional not elsewhere classified.

Example(s) of job classified under this code:

- Air pollution analyst
- Conservation officer
- Sustainability specialist
- Water quality analyst

Example(s) of job not classified under this code:

- Atmospheric scientist, see 21120
- Environmental engineer, see 21430

Unit Group 2134 Pharmacologists and Related Professionals

Pharmacologists and related professionals study the structure, composition, and life processes of humans, animals and micro-organisms and apply this knowledge to prevent disease in humans and animals, promote health and physical fitness and develop animals for economic exploitation. They work in diverse fields such as anatomy, genetics, pharmacology, physiology, bacteriology and virology.

Tasks include:

- undertaking research in laboratories and in the field to increase scientific knowledge of living organisms
- designing and conducting experiments and tests to discover new information to solve problems in areas such as the environment, agriculture and health, and to develop new products, processes and techniques for pharmaceutical, agricultural and environmental use
- gathering human, animal, insect and plant specimens and data, and studying their origin, development, chemical and physical form, structure, composition, and life and reproductive processes
- examining living organisms using a variety of specialised equipment, instruments, technologies and techniques such as electron microscopes, telemetry, global positioning systems, biotechnology, satellite imaging, genetic engineering, digital imaging analysis, polymerase chain reaction and computer modelling
- writing scientific papers and reports detailing research and new findings which are then made available to the scientific community in scientific journals or at conferences for scrutiny and further debate
- designing and carrying out environmental impact assessments to identify changes caused by natural or human factors
- providing advice to governments, organisations and businesses in areas such as conservation, management of natural resources, the effects of climate change and pollution
- assisting researchers in their conduct and implementation of clinical research projects
- performing monitoring activities in accordance with standard operating procedures (sop), which include investigator/site selection as well as management and coordination of site related activities
- developing systems to track projects including all study, investigator and ethical review board information, patient recruitment activity and financial management

Occupation(s) in this Unit Group:

- 21341 Pharmacologist
- 21342 Medical laboratory scientist
- 21343 Biochemist
- 21344 Physiologist
- 21345 Animal scientist
- 21346 Medical scientist
- 21347 Clinical research professional
- 21349 Pharmacologist and related professional n.e.c.

Occupation 21341 Pharmacologist

Pharmacologist conducts research into effects of drugs and other substances on humans and animals, and develops new and improved medicinal drugs. He/she performs experiments, tests and analyses to determine effects of drugs and other substances on human tissues, organs, metabolism, cell growth and reproduction, circulation, respiration, digestion and other life processes. He/she may collaborate with medical doctors and pharmacists in the testing of drugs on human beings and standardise drug dosages for treatment of illnesses. He/she may collaborate with industrial pharmacists in development of drugs and standardisation of production methods and drug potency.

Example(s) of job classified under this code:

- Pharmacology research analyst
- Toxicologist

Example(s) of job not classified under this code:

- Food toxicologist, see 21130
- Biologist, see 21311
- Environmental toxicologist, see 21332
- Pharmacist (patient care), see 22621

Occupation 21342 Medical laboratory scientist

Medical laboratory scientist performs clinical tests on bodily fluids and tissues to obtain information about the health status of a patient or cause of death. He/she operates, calibrates and maintains equipment used in analysis, such as mass spectrophotometers and automated analysers. He/she establishes, monitors and reviews quality management programmes to ensure the accuracy of laboratory results. He/she develops, standardises, modifies and evaluates procedures, techniques and tests used in the analysis of specimens. He/she cultures, isolates and identifies micro-organisms and viruses.

Example(s) of job classified under this code:

- Epidemiologist

Occupation 21343 Biochemist

Biochemist conducts research into chemical composition processes of living organisms to increase scientific knowledge and develop industrial, medical and other practical applications. He/she performs experiments, tests and analyses to determine chemical composition of living organisms, chemistry of their vital processes such as breathing, digestion, growth and aging, chemical action of foods, drugs, serums, hormones and other substances on their tissues and vital processes, chemical aspects of formation of antibodies in the blood, and other bio-

chemical phenomena. He/she develops new or improved applications of biochemistry in industry, medicine, public health and other fields.

Example(s) of job classified under this code:

- Biochemistry research scientist
- Biochemistry technologist

Example(s) of job not classified under this code:

- Chemist, see 21130
- Biologist, see 21311
- Biochemical engineer, see 21451
- Biomedical engineer, see 21491

Occupation 21344 Physiologist

Physiologist conducts research into biological functions and activities of human organisms to increase scientific knowledge and develop practical applications in medical and related fields. He/she studies functions and working of the brain, nervous system, sensory organs, glands, respiratory and blood circulation systems and other life processes of the human organism and investigates reactions of life processes and functions to changes in altitude, noise levels, motion, light intensity, temperature, humidity and other environmental factors. He/she applies scientific knowledge to problems of physical fitness, nutrition, human endurance and similar matters.

Example(s) of job classified under this code:

- Clinical physiologist
- Exercise physiologist
- Immunologist
- Neurophysiologist

Example(s) of job not classified under this code:

- Neurosurgeon, see 22134
- Sports physician, see 22149
- Electroencephalograph technician, see 32119

Notes:

Clinical physiologists who participate in diagnosis of patients through various testing methods and do not engage in practice are classified in this unit group. Those who undertake clinical practice are classified in Minor Group 221 ‘Medical Doctors’.

Occupation 21345 Animal scientist

Animal scientist conducts research into animal genetics, advanced animal husbandry methods and related matters and applies scientific knowledge to develop improved strains, improved methods of raising animals and higher yields of animal products. He/she conducts experiments to ascertain feed, housing, sanitation and other requirements for production of meat or other animal products of desired quality and for maintenance of health and strength of animals. He/she also develops improved methods of controlling animal parasites and diseases, slaughtering for meat and preparation and storage of animal products.

Example(s) of job classified under this code:

- Animal geneticist

Example(s) of job not classified under this code:

- Zoologist, see 21312

Occupation 21346 Medical scientist

Medical scientist conducts research dealing with the understanding of human diseases and the improvement of human health. He/she engages in clinical investigation, research and development, or other related activities to develop new treatment options, drugs and vaccines.

Example(s) of job classified under this code:

- Medical geneticist

Example(s) of job not classified under this code:

- Medical physicist, see 21110
- Biologist, see 21311
- Clinical engineer (biomedical), see 21491

Notes:

Physicians, dentists, public health specialists, pharmacologists, and medical pathologists who primarily conduct medical research are classified in this occupation, rather than in their respective occupations in Sub-major Group 22 ‘Health Professionals’ and others classified in a number of occupations in Major Group 2 ‘Professionals’.

Occupation 21347 Clinical research professional

Clinical research professional plans, directs and coordinates clinical research projects. He/she directs the activities of workers engaged in clinical research projects to ensure compliance with protocols and overall clinical objectives. He/she may evaluate and analyse clinical data.

Example(s) of job not classified under this code:

- Clinical engineer (biomedical), see 21491
- Clinical research coordinator, see 31412

Occupation 21349 Pharmacologist and related professional n.e.c.

This group covers pharmacologist and related professional not elsewhere classified.

Example(s) of job classified under this code:

- Anatomist
- Bacteriologist

Example(s) of job not classified under this code:

- Biology biotechnologist, see 21311

MINOR GROUP 214 ENGINEERING PROFESSIONALS I

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2141 Industrial and Production Engineers
- 2142 Civil Engineers
- 2143 Environmental Engineers
- 2144 Mechanical Engineers (Excluding Transport and Vehicle Engineers)
- 2145 Chemical Engineers
- 2146 Mining Engineers, Metallurgists and Related Professionals
- 2147 Transport and Vehicle Engineers
- 2149 Engineering Professionals Not Elsewhere Classified

Unit Group 2141 Industrial and Production Engineers

Industrial and production engineers conduct research and design, organise and oversee the construction, operation and maintenance of process plant and installations. They establish programmes for the coordination of manufacturing activities, and assess cost effectiveness and safety.

Tasks include:

- studying functional statements, organisational charts and project information to determine functions and responsibilities of workers and work units and to identify areas of duplication
- establishing work measurement programmes and analysing work samples to develop standards for labour utilisation

- analysing workforce utilisation, facility layout, operational data and production schedules and costs to determine optimum worker and equipment efficiencies
- developing specifications for manufacture, and determining materials, equipment, piping, material flows, capacities and layout of plant and systems
- organising and managing project labour and the delivery of materials, plant and equipment
- establishing standards and policies for installation, modification, quality control, testing, inspection and maintenance according to engineering principles and safety regulations
- inspecting plant to improve and maintain performance
- directing the maintenance of plant buildings and equipment, and coordinating the requirements for new designs, surveys and maintenance schedules
- advising management on new production methods, techniques and equipment
- liaising with materials buying, storing and controlling departments to ensure a steady flow of supplies

Occupation(s) in this Unit Group:

- 21411 Manufacturing engineer
- 21412 Production engineer
- 21413 Automation engineer
- 21414 Quality control/assurance engineer
- 21415 Process engineer

Occupation 21411 Manufacturing engineer

Manufacturing engineer applies engineering principles and techniques to design, develop and manage manufacturing processes. He/she studies and advises on the production processes and makes recommendations to promote efficiency and supervises their implementation. He/she consults with management and supervisory personnel to ascertain production objectives and to identify problems, study existing or proposed organisation, processes and procedures, including product design, plant layout, machine utilisation, materials handling, work allocation, cost accounting, inspection and quality control.

Example(s) of job classified under this code:

- Manufacturing applications engineer
- Manufacturing engineering consultant

Example(s) of job not classified under this code:

- Manufacturing operations manager, see 13210
- Production engineer, see 21412

- Process engineer, see 21415
- Industrial safety engineer, see 21493
- Manufacturing engineering technician, see 31171

Occupation 21412 Production engineer

Production engineer reviews and evaluates production performance, performs data analysis and identifies under-performing production systems. He/she analyses workforce utilisation, facility layout, operational data and production schedules and costs to determine optimum worker and equipment efficiencies, and plans production enhancements and process optimisations. He/she prepares production plans, taking account of sequence and timing of each operation, tool and material requirements, machine loads, manpower and other factors. He/she may plan and program work flow for each production line to be consistent with established manufacturing sequences.

Example(s) of job classified under this code:

- Organisation and methods engineer
- Production engineering adviser

Example(s) of job not classified under this code:

- Industrial production manager, see 13210
- Manufacturing engineer, see 21411
- Process engineer, see 21415
- Production engineering technician, see 31172

Occupation 21413 Automation engineer

Automation engineer researches, designs, and develops applications and systems for the automation of the production process. He/she implements technology and integrates various systems such as for software automation, factory automation, process automation, warehousing and logistics automation to reduce human input and shorten process time to increase productivity.

Example(s) of job classified under this code:

- Automated systems engineer
- Autonomous systems engineer
- Robotics engineer

Example(s) of job not classified under this code:

- Automation and orchestration engineer, see 25233

- Automation designer, see 31174
- Automation technician, see 31174

Occupation 21414 Quality control/assurance engineer

Quality control/assurance engineer establishes standards and policies to ensure the production and maintenance processes and manufactured products meet regulatory and customer requirements. He/she conducts internal or external quality audits and investigates work-induced defects. He/she performs root cause and corrective action analysis and monitors the implementation of preventive actions.

Example(s) of job not classified under this code:

- Quality control manager, see 13292
- Quality assurance technician, see 31175

Occupation 21415 Process engineer

Process engineer applies engineering principles and techniques to optimise the production processes in a manufacturing environment to meet organisational objectives. He/she analyses and troubleshoots process engineering, manufacturing and/or maintenance issues and recommends engineering solutions, and develops work instructions for 'out of control' processes. He/she leads production and manufacturing systems improvement projects, and develops operation plans in accordance with organisational objectives. He/she also ensures compliance with Workplace Safety and Health, and other relevant regulatory requirements.

Example(s) of job classified under this code:

- Chemical process engineer
- Process engineer (electronic)
- Process engineering expert
- Process technology engineer

Example(s) of job not classified under this code:

- Manufacturing engineer, see 21411
- Production engineer, see 21412
- Process engineering technician, see 31173

Unit Group 2142 Civil Engineers

Civil engineers conduct research, advise on, design, and direct construction, manage the operation and maintenance of civil engineering structures or study and advise on technological aspects of particular materials.

Tasks include:

- conducting research and developing new or improved theories and methods related to civil engineering
- advising on and designing structures such as bridges, dams, docks, roads, airports, railways, canals, pipelines, waste-disposal and flood-control systems, and industrial and other large buildings
- determining and specifying construction methods, materials and quality standards, and directing construction work
- establishing control systems to ensure efficient functioning of structures as well as safety and environmental protection
- organising and directing maintenance and repair of existing civil engineering structures
- analysing the behaviour of soil and rock when placed under pressure by proposed structures and designing structural foundations
- analysing the stability of structures and testing the behaviour and durability of materials used in their construction

Occupation(s) in this Unit Group:

- 21421 Civil engineer
- 21422 Building construction engineer

Occupation 21421 Civil engineer

Civil engineer conducts research, designs, plans and oversees construction and maintenance activities on structures and facilities such as bridges, roads, airports, railways, pipelines and industrial and other large buildings. He/she establishes control systems to ensure efficient functioning of structures as well as safety and environmental protection. He/she organises and directs maintenance and repair of existing civil engineering structures. He/she may analyse the stability of structures, collect and test samples to study the behaviour of soil, rock or construction materials under proposed design parameters.

Example(s) of job classified under this code:

- Geotechnical engineer
- Rail track engineer
- Soil mechanics engineer
- Structural steel engineer

Example(s) of job not classified under this code:

- Stratigrapher, see 21141
- Soil scientist, see 21329
- Building materials engineer, see 21492

Occupation 21422 Building construction engineer

Building construction engineer determines and specifies construction methods, materials and quality standards, and directs construction work. He/she integrates engineering principles into designs of large buildings to ensure that structures are safe and structurally sound. He/she also plans, organises and supervises the erection, maintenance and repair of buildings. He/she works together with architects and other engineers to transform design ideas into executable plans.

Example(s) of job classified under this code:

- Architectural engineer
- Building construction project engineer
- Structural engineer (buildings)

Example(s) of job not classified under this code:

- Construction project manager, see 13230
- Construction project cost consultant, see 21494
- Building architect, see 21610
- Town planner, see 21641

Unit Group 2143 Environmental Engineers

Environmental engineers conduct research, advise on, design and direct implementation of solutions to prevent, control or remedy negative impacts of human activity on the environment utilising a variety of engineering disciplines. They conduct environmental assessments of construction and civil engineering projects and apply engineering principles to pollution control, recycling and waste disposal.

Tasks include:

- conducting research, assessing and reporting on the environmental impact of existing and proposed construction, civil engineering and other activities
- inspecting industrial and municipal facilities and programmes to evaluate operational effectiveness and ensure compliance with environmental regulations
- designing and overseeing the development of systems, processes and equipment for control, management, or remediation of water, air, or soil quality
- obtaining, updating, and maintaining plans, permits, and standard operating procedures
- providing engineering and technical support for environmental remediation and litigation projects, including remediation system design and determination of regulatory applicability
- monitoring progress of environmental improvement programmes

- advising corporations and government agencies of procedures to follow in cleaning up contaminated sites to protect people and the environment
- collaborating with environmental scientists, planners, hazardous waste technicians, engineers from other disciplines, and specialists in law and business to address environmental problems

Occupation(s) in this Unit Group:

- 21430 Environmental engineer

Occupation 21430 Environmental engineer

Environmental engineer conducts research, advises on, designs and directs implementation of solutions to prevent, control or remedy negative impacts of human activity on the environment utilising a variety of engineering disciplines. He/she conducts environmental assessments of construction and civil engineering projects and applies engineering principles to pollution control, recycling and waste disposal.

Example(s) of job classified under this code:

- Air pollution control engineer
- Sanitary engineer
- Waste management engineer

Example(s) of job not classified under this code:

- Environmental officer (environmental protection), see 21331
- Environmental auditor, see 21333
- Water quality analyst, see 21339
- Industrial safety engineer, see 21493
- Nuclear power engineer, see 21499
- Environmental officer (public health), see 22632

Unit Group 2144 Mechanical Engineers (Excluding Transport and Vehicle Engineers)

Mechanical engineers (excluding transport and vehicle engineers) conduct research, advise on, design, and direct production, functioning, maintenance and repair of machines, machinery and industrial plant, equipment and systems. They also study and advise on mechanical aspects of particular materials, products or processes.

Tasks include:

- advising on and designing machinery and tools for manufacturing, mining, construction, agricultural, and other industrial purposes

- advising on and designing superstructures and propulsion systems of mechanical plant and equipment for the release, control and utilisation of energy, heating, ventilation and refrigeration systems, steering gear, pumps, and other mechanical equipment
- advising on and designing non-electrical parts of apparatus or products such as word processors, computers, precision instruments, cameras and projectors
- establishing control standards and procedures to ensure efficient functioning and safety of machines, machinery, tools, motors, engines, industrial plant, equipment, or systems
- ensuring that equipment, operation and maintenance comply with design specifications and safety standards

Occupation(s) in this Unit Group:

- 21441 Mechanical engineer
- 21442 Industrial machinery/tools engineer
- 21443 Air-conditioning/Refrigeration engineer
- 21444 Port equipment engineer

Occupation 21441 Mechanical engineer

Mechanical engineer carries out research on, designs and advises on mechanically functioning plant and equipment, and plans and supervises their development, manufacture, construction, installation, operation, maintenance and repair. He/she studies operating requirements for mechanically functioning plant and equipment such as machine tools, engines, vehicles, heating, ventilating and refrigerating plant, as well as plant and equipment for the release.

Example(s) of job classified under this code:

- Fuel cell engineer
- Gas turbine engineer
- Internal combustion motor engineer

Occupation 21442 Industrial machinery/tools engineer

Industrial machinery/tools engineer studies, designs and advises on machinery and tools for manufacturing, mining, construction, agricultural work, printing and other industrial purposes. He/she plans and supervises their development, manufacture, installation, operation, maintenance and repair.

Example(s) of job classified under this code:

- Mechanical equipment design engineer
- Tool design engineer

Example(s) of job not classified under this code:

- Commercial products designer, see 21632
- Tool designer, see 31153

Occupation 21443 Air-conditioning/Refrigeration engineer

Air-conditioning/Refrigeration engineer studies, designs and advises on heating, ventilation and refrigeration systems and equipment, and plans and supervises their development, manufacture, installation, maintenance and repair. He/she specialises in systems and equipment for heating, ventilating and air-conditioning industrial structures and commercial, residential and other buildings, and for making ice and cooling storage places, including ships' cargo holds.

Example(s) of job classified under this code:

- Air-conditioning and mechanical ventilation (ACMV) service engineer

Occupation 21444 Port equipment engineer

Port equipment engineer develops and oversees maintenance regimes for port equipment. He/she ensures that maintenance works are carried out swiftly and in accordance with regulatory requirements to minimise disruptions to port operations. He/she also reviews the relevance and functionality of port equipment to meet changing business demands, and researches on ways to improve operational, safety and environmental standards.

Unit Group 2145 Chemical Engineers

Chemical engineers conduct research and develop, advise on and direct commercial-scale chemical processes and production of various substances and items such as crude oil, petroleum derivatives, food and drink products, medicines, or synthetic materials. They direct maintenance and repair of chemical plant and equipment and study and advise on chemical aspects of particular materials, products or processes.

Tasks include:

- conducting research and advising on, and developing commercial-scale chemical processes to refine crude oil and other liquids or gases, and to produce substances and items such as petroleum derivatives, explosives, food and drink products, medicines or synthetic materials
- specifying chemical production methods, materials and quality standards and ensuring that they conform to specifications
- establishing control standards and procedures to ensure safety and efficiency of chemical production operations and safety of workers operating equipment or working in close proximity to on-going chemical reactions
- designing chemical plant equipment and devising processes for manufacturing chemicals and products

- performing tests throughout stages of production to determine degree of control over variables, including temperature, density, specific gravity, and pressure
- developing safety procedures to be employed
- preparing estimates of production costs and production progress reports for management
- performing laboratory studies of steps in manufacture of new products and testing proposed processes in small scale operations such as a pilot plant

Occupation(s) in this Unit Group:

- 21451 Chemical engineer (excluding petroleum and petrochemical)
- 21452 Chemical engineer (petroleum)
- 21453 Chemical engineer (petrochemical)
- 21454 Food/Drink technologist

Occupation 21451 Chemical engineer (excluding petroleum and petrochemical)

Chemical engineer (excluding petroleum and petrochemical) studies, develops and advises on processes for producing on a commercial scale the chemical or physical transformation of substances, as in the manufacture of chemicals, metals, food products and synthetic materials. He/she designs and develops chemical manufacturing processes and specifies the sequence of physical transformation operations such as heating, mixing, distilling, filtering and chemical processing such as hydrolysis, oxidation, fermentation, electrolysis and polymerisation. He/she develops and implements quality control procedures to inspect and test raw materials and products to ensure compliance with specifications and safety standards.

Example(s) of job classified under this code:

- Biochemical engineer
- Pharmaceutical engineer
- Plastics engineer

Example(s) of job not classified under this code:

- Chemist, see 21130
- Biochemist, see 21343
- Petrochemical engineer (plastics), see 21453

Occupation 21452 Chemical engineer (petroleum)

Chemical engineer (petroleum) studies, develops and advises on processes for the refining of crude oil, designs appropriate plant and plans and supervises its construction, operation, maintenance and repair. He/she specialises in the refining of crude oil (petroleum) and the production of derivatives such as petrol and paraffin fuels and lubricating oils and greases.

Example(s) of job classified under this code:

- Petroleum refining engineer

Example(s) of job not classified under this code:

- Petroleum chemist, see 21130
- Petroleum and natural gas engineer, see 21460

Occupation 21453 Chemical engineer (petrochemical)

Chemical engineer (petrochemical) studies, develops and advises on processes for breaking down crude oil and petroleum, and processes that use the base components and derivative products to develop everyday products such as plastics, rubber and synthetic fibres. He/she also deals with applied research and development and other technical roles in the plant or refinery.

Example(s) of job classified under this code:

- Petrochemical engineer (plastics)
- Petrochemical engineer (polymer)

Example(s) of job not classified under this code:

- Plastics engineer, see 21451

Occupation 21454 Food/Drink technologist

Food/Drink technologist engages in research into the manufacture and processing of food and/or drink including emerging food products such as alternative proteins, cultivated proteins and nutraceuticals, the development of new and improved processes and the design of associated plant and machinery. He/she analyses raw materials, selects required mixtures for type of product, determines grinding, mixing, cooking, fermentation, bioreaction, dehydration and other processing specifications and tests foodstuffs and/or beverages during and at completion of processing or manufacture to ensure compliance with specifications concerning flavour, colouring consistency and other characteristics. He/she may also conduct environment scanning for new and emerging food safety threats, leverage new technologies to enhance food testing capabilities and conduct laboratory testing, research and risk assessment to ensure food produced is safe.

Example(s) of job classified under this code:

- Food biotechnologist
- Food scientist
- Food technology advisor
- Research and development (R&D) chef

Example(s) of job not classified under this code:

- Food chemist, see 21130
- Food technician, see 31164

Unit Group 2146 Mining Engineers, Metallurgists and Related Professionals

Mining engineers, metallurgists and related professionals conduct research on, design, develop and maintain commercial-scale methods of extracting metals from their ores, or minerals, water, oil or gas from the earth and of developing new alloys, ceramic and other materials, or study and advise on mining or metallurgical aspects of particular materials, products or processes.

Tasks include:

- determining the location and planning the extraction of coal, metallic ores, non-metallic minerals, and building materials, such as stone and gravel
- determining the most suitable methods of efficient mining and extraction, types of machinery to be used, planning layout and directing construction of shafts and tunnels
- determining drilling site and devising methods of controlling the flow of water, oil or gas from wells
- planning and directing storage, initial treatment and transportation of water, oil or gas
- conducting research, developing methods of extracting metals from their ores and advising on their application
- investigating properties of metals and alloys, developing new alloys and advising on and supervising technical aspects of metal and alloy manufacture and processing
- maintaining technical liaison and consultancy with other relevant specialists such as geologists and geophysicists
- examining deposits or mines to evaluate profitability

Occupation(s) in this Unit Group:

- 21460 Mining engineer/Metallurgist and related professional

Occupation 21460 Mining engineer/Metallurgist and related professional

Mining engineer/Metallurgist and related professional conducts research on, designs, develops and maintains commercial-scale methods of extracting metals from their ores, or minerals, water, oil or gas from the earth and of developing new alloys, ceramic and other materials, or studies and advises on mining or metallurgical aspects of particular materials, products or processes. He/she determines operating parameters such as temperatures, pressures and other variable factors in extractive processes to ensure products are of required quality in commercial quantities.

Example(s) of job classified under this code:

- Assayer
- Minerals engineer
- Non-metalliferous mining engineer
- Offshore drilling engineer
- Petroleum and natural gas engineer

Example(s) of job not classified under this code:

- Metallurgical chemist, see 21130
- Geologist, see 21141
- Mineralogist, see 21149
- Petroleum refining engineer, see 21452
- Metallographer, see 21492
- Ore technologist, see 31292

Unit Group 2147 Transport and Vehicle Engineers

Transport and vehicle engineers conduct research, advise on, design, and direct production, functioning, maintenance and repair of transport equipment. They also study and advise on mechanical aspects of transport equipment.

Tasks include:

- advising on and designing machinery for transport purposes
- advising on and designing steam, internal combustion and other non-electric motors and engines used for propulsion of railway locomotives, road vehicles or aircraft
- advising on and designing hulls, superstructures and propulsion systems of ships and transport equipment for the release, control and utilisation of energy, heating, ventilation and refrigeration systems, steering gear, pumps, and other mechanical equipment
- advising on and designing airframes, undercarriages and other equipment for aircraft as well as suspension systems, brakes, vehicle bodies and other components of road vehicles

Occupation(s) in this Unit Group:

- 21471 Aeronautical engineer
- 21472 Automotive engineer
- 21473 Marine engineer
- 21474 Naval architect
- 21475 Rolling stock engineer

Occupation 21471 Aeronautical engineer

Aeronautical engineer studies, designs and advises on airframes, undercarriages and other equipment for aircraft, and consults with aero-engine specialists to coordinate design of aircraft. He/she plans and supervises aircrafts' development, construction, maintenance and repair. He/she may specialise in particular type of aircraft, such as helicopters or cargo, passenger or military aircraft.

Example(s) of job classified under this code:

- Aerodynamics engineer
- Aircraft designer

Example(s) of job not classified under this code:

- Aerodynamicist, see 21110

Occupation 21472 Automotive engineer

Automotive engineer designs and oversees the manufacturing process and operation of motor vehicles such as motorcycles, cars, trucks, buses and their respective engineering systems such as suspension systems, brakes and other components. He/she designs new vehicles or mechanical parts, supervises modifications, resolves technical problems, and ensures that the designs comply with cost specifications and other constraints. He/she also conducts research studying environmental, energy and safety aspects with regards to motor vehicle design.

Example(s) of job classified under this code:

- Bus fleet engineer
- Mechanical engineer (automotive)

Occupation 21473 Marine engineer

Marine engineer studies, designs and advises on ships' propulsion systems, power plants, heating and ventilating systems, steering gear, pumps and other mechanical and electrical equipment, and plans and supervises their development, construction, installation, maintenance and repair.

Example(s) of job classified under this code:

- Marine engineer (shore-based)

Example(s) of job not classified under this code:

- Marine engineer officer, see 31510

Occupation 21474 Naval architect

Naval architect studies, designs and advises on the hulls and super-structures of ships and other vessels, and consults with marine engineer to coordinate design of vessel. He/she plans and supervises vessels' development, construction, maintenance and repair. He/she may specialise in particular type of vessels such as warships, cargo ships or passenger liners.

Example(s) of job classified under this code:

- Marine structural designer
- Ship construction engineer

Occupation 21475 Rolling stock engineer

Rolling stock engineer oversees and performs routine maintenance duties to ensure that trains are in working condition and meet quality and safety standards. He/she may design and oversee the manufacturing process and installation of rail vehicles, including locomotives, carriages, wagons and multiple units. He/she may also design new trains and electrical or mechanical parts, supervise modifications and resolve technical problems.

Example(s) of job classified under this code:

- Railway vehicle engineer

Unit Group 2149 Engineering Professionals Not Elsewhere Classified

This unit group covers engineering professionals not elsewhere classified in Minor Groups 214 and 215 'Engineering Professionals'.

Tasks include:

- applying knowledge of engineering to the design, development, and evaluation of biological and health systems and products, such as artificial organs, prostheses, and instrumentation
- designing devices used in various medical procedures, imaging systems such as magnetic resonance imaging (MRI), and devices for automating insulin injections or controlling body functions
- designing components of optical instruments such as lenses, microscopes, telescopes, lasers, optical disc systems and other equipment that utilise the properties of light
- designing, testing, and coordinating the development of explosive ordnance material to meet military procurement specifications
- designing and overseeing construction and operation of nuclear reactors and power plants and nuclear fuels reprocessing and reclamation systems
- designing and developing nuclear equipment such as reactor cores, radiation shielding, and associated instrumentation and control mechanisms
- assessing damage and providing calculations for marine salvage operations

- studying and advising on engineering aspects of particular manufacturing processes, such as those related to glass, ceramics, textiles, leather products, wood, and printing
- providing security audit, review and security risk assessment services to clients and recommending security solutions/designs to existing and new structural development projects (public and private facilities)
- developing and conducting security training
- developing and implementing energy management practices in corporations ensuring compliance to regulatory requirements
- purchasing of technical goods and services, evaluating and negotiating with suppliers

Occupation(s) in this Unit Group:

- 21491 Biomedical engineer
- 21492 Materials engineer
- 21493 Industrial safety engineer
- 21494 Quantity surveyor
- 21495 Intellectual property engineer
- 21496 Energy engineer
- 21497 Optical engineer
- 21498 Procurement engineer
- 21499 Other engineering professional n.e.c.

Occupation 21491 Biomedical engineer

Biomedical engineer applies knowledge of engineering, biology, and biomechanical principles to the design, development, and evaluation of biological and health systems and products, such as artificial organs, prostheses, instrumentation, medical information systems, and health management and care delivery systems.

Example(s) of job classified under this code:

- Biomaterials engineer
- Clinical engineer (biomedical)

Example(s) of job not classified under this code:

- Biochemist, see 21343
- Medical scientist, see 21346
- Clinical research professional, see 21347
- Materials engineer, see 21492

Notes:

While biomedical engineer is classified in this occupation, biomedical engineer is considered to be an integral part of the health workforce alongside those occupations classified in Sub-Major Group 22 'Health Professionals', and others classified in a number of other unit groups in Major Group 2 'Professionals'.

Occupation 21492 Materials engineer

Materials engineer researches and designs new or improved materials for a diverse number of applications. He/she analyses the composition of materials, conducts experiments, and develops new materials for industry-specific use that can range from rubber, to textiles, glass, metals, and chemicals. He/she also advises companies in damage assessments, quality assurance of materials, and recycling of materials.

Example(s) of job classified under this code:

- Building materials engineer
- Metallographer
- Welding engineer

Example(s) of job not classified under this code:

- Civil engineer, see 21421
- Metallurgist, see 21460
- Biomaterials engineer, see 21491

Occupation 21493 Industrial safety engineer

Industrial safety engineer maintains the workplace safety system of an organisation. He/she manages and reviews workplace safety policies, standards, procedures in accordance with business needs. He/she inspects workplaces and industrial plants for hazards, proposes means of preventing or reducing industrial accidents and diseases, and designs safety devices. He/she examines the plans and specifications of new premises, plant and equipment to ensure that adequate precautions have been taken to avoid hazards. He/she may also investigate causes of accidents and introduce measures to prevent their reoccurrence and plan, organise and carry out educational programmes on accident prevention.

Example(s) of job classified under this code:

- Workplace safety and health manager

Example(s) of job not classified under this code:

- Manufacturing engineer, see 21411
- Environmental engineer, see 21430

- Fire and safety officer, see 31711
- Health, safety and environmental (HSE) officer, see 32572

Occupation 21494 Quantity surveyor

Quantity surveyor estimates quantities and costs of building materials and labour required and prepares bills of quantities. He/she visits the site periodically to estimate the value of work completed prior to issuing certificates for interim payments to the contractor and examines the completed project, makes measurements and calculations, adjusts any variations from the original contract and assesses the final cost. He/she may analyse comparative advantages and estimate costs of using different methods of construction or different materials, be involved in contract management to ensure compliance, and may also assist with tender preparation and submission and prepare or check final accounts.

Example(s) of job classified under this code:

- Construction project cost consultant

Example(s) of job not classified under this code:

- Building construction project engineer, see 21422
- Cadastral surveyor, see 21651
- Engineering surveyor, see 21659
- Quantity surveying technician, see 31294

Occupation 21495 Intellectual property engineer

Intellectual property engineer supports the preparation of intellectual property (IP) applications, reviews technical specifications and documents to ensure compliance with IP strategies and polices, contracts drafting and negotiation. He/she also handles the administrative and operational requirements of the IP applications, performs budget review and assists in IP portfolio docket management, identifying potential infringements of the organisation's IP.

Example(s) of job classified under this code:

- Patent analyst
- Patent researcher
- Intellectual property executive

Example(s) of job not classified under this code:

- Intellectual property information analyst, see 21212
- Intellectual property agent, see 24251

Occupation 21496 Energy engineer

Energy engineer coordinates the energy demands and use in an organisation, and aims to implement policies for increased sustainability, and minimisation of cost and environmental impact. He/she monitors, analyses and reports corporations and its industrial premises' energy use and carbon emissions, conducts detailed energy audits on energy-consuming systems and ensures the corporation's compliance with regulatory requirements on energy management practices in industrial premises. He/she also researches on, develops, recommends and implements energy/carbon efficiency improvement and energy/carbon reduction measures and energy management systems within the corporation. He/she may advise on demand management of energy usage.

Example(s) of job classified under this code:

- Energy auditor
- Energy systems engineer

Example(s) of job not classified under this code:

- Electric power engineer, see 21512

Occupation 21497 Optical engineer

Optical engineer designs and develops different industrial applications with optics. He/she applies knowledge of light, light transmission principles, and optics to design engineering specs of equipment such as microscopes, lenses, telescopes, lasers and other optical devices.

Example(s) of job classified under this code:

- Photonics engineer
- Laser engineer

Example(s) of job not classified under this code:

- Optics physicist, see 21110

Occupation 21498 Procurement engineer

Procurement engineer oversees the purchase of technical goods and services to support engineering projects and industrial operations. He/she translates projects' technical and engineering requirements into specifications for materials, equipment and services to procure. He/she evaluates suppliers and negotiates purchase agreements with them, as well as maintaining vendor contract records and databases, and following up on vendors' deliverables.

Example(s) of job not classified under this code:

- Procurement manager, see 13242
- Technical purchaser, see 33232

Occupation 21499 Other engineering professional n.e.c.

This group covers other engineering professional not elsewhere classified.

Example(s) of job classified under this code:

- Ceramics technologist
- Glass technologist
- Logistics solutions engineer
- Nuclear power engineer
- Traffic engineer

Example(s) of job not classified under this code:

- Logistics project manager, see 13241
- Nuclear physicist, see 21110
- Environmental engineer, see 21430
- Power generation engineer, see 21512
- Engineering surveyor, see 21659
- Logistics planner, see 33461

MINOR GROUP 215 ENGINEERING PROFESSIONALS II (Cont'd)

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2151 Electrical Engineers
- 2152 Electronics Engineers
- 2153 Telecommunications Engineers

Unit Group 2151 Electrical Engineers

Electrical engineers conduct research on, advise on, design, and direct the construction and operation of electrical systems, components, motors and equipment, and advise on and direct their functioning, maintenance and repair, or study and advise on technological aspects of electrical engineering materials, products and processes.

Tasks include:

- advising on and designing power stations and systems which generate, transmit and distribute electrical power
- supervising, controlling and monitoring the operation of electrical generation, transmission and distribution systems

- advising on and designing systems for electrical motors, electrical traction and other equipment, or electrical domestic appliances
- specifying electrical installation and application in industrial and other buildings and objects
- establishing control standards and procedures to monitor performance and safety of electrical generating and distribution systems, motors and equipment
- determining manufacturing methods for electrical systems, as well as maintenance and repair of existing electrical systems, motors and equipment

Occupation(s) in this Unit Group:

- 21511 Electrical engineer
- 21512 Power generation/Distribution engineer
- 21513 Lift engineer

Occupation 21511 Electrical engineer

Electrical engineer conducts research and advises on, designs, and directs the construction and operation of electrical systems and equipment, and plans and supervises their development, construction, installation, operation, maintenance and repair. He/she studies operating requirements for industrial and domestic electrical machinery and appliances and other electrical equipment, and engages in research and development work. He/she designs electrical systems and equipment, prepares working drawings and specifications, and supervises technical aspects of manufacturing processes.

Example(s) of job classified under this code:

- Electrical circuit engineer
- Electrical equipment engineer
- Electrical surveyor
- Signal systems engineer (electrical)

Example(s) of job not classified under this code:

- Electronics engineer, see 21521
- Telecommunications engineer, see 21532
- Electrical draughtsperson, see 31182

Occupation 21512 Power generation/distribution engineer

Power generation/distribution engineer designs, develops and operates systems and facilities which generate and distribute electrical power to the consumers. He/she develops strategies for the improvement of existing electricity generation systems and researches methods for the optimisation of power distribution. He/she ensures the consumers' electrical power needs

are met and also compliance to safety regulations by monitoring the automated processes in plants and directing workflow.

Example(s) of job classified under this code:

- Electric power engineer
- Power network engineer
- Transmission engineer (electric power)

Example(s) of job not classified under this code:

- Energy systems engineer, see 21496
- Nuclear power engineer, see 21499

Occupation 21513 Lift engineer

Lift engineer studies, designs and advises on systems and equipment (e.g. elevators, escalators, hoists etc.) for vertical transportation of passengers and goods. He/she checks systems and equipment to ensure compliance with specifications and safety standards.

Unit Group 2152 Electronics Engineers

Electronics engineers conduct research on, design, and direct the construction of the functioning, maintenance and repair of electronic systems. They study and advise on technological aspects of electronic engineering materials, products or processes.

Tasks include:

- advising on and designing electronic devices or components, circuits, semi-conductors, and embedded systems
- specifying production or installation methods, materials and quality standards and directing production or installation work of electronic products and embedded systems
- establishing control standards and procedures to ensure efficient functioning and safety of electronic systems, motors and equipment
- organising and directing maintenance and repair of existing electronic systems, and equipment
- designing electronic circuits and components for use in fields such as aerospace guidance and propulsion control, acoustics, or instruments and controls
- researching and advising on radar, telemetry and remote control systems, microwaves and other electronic equipment
- designing and developing signal processing algorithms and implementing these through appropriate choice of hardware and software
- developing apparatus and procedures to test electronic components, circuits and systems

Occupation(s) in this Unit Group:

- 21521 Electronics engineer
- 21522 Computer engineer
- 21523 Semi-conductor engineer
- 21524 Audio/Video equipment engineer
- 21525 Instrumentation engineer
- 21526 Embedded systems engineer

Occupation 21521 Electronics engineer

Electronics engineer researches on, designs, develops and advises on electronic devices, equipment and systems and plans and supervises their development, construction, installation, operation, maintenance and repair, and checks completed work to ensure compliance with specifications and safety standards. He/she studies operating requirements for electronic equipment in fields such as telecommunications, acoustics, instrumentation and automatic control systems and also engages in research and development work. He/she designs electronic systems and equipment, prepares working drawings and specifications, and supervises technical aspects of manufacturing processes.

Example(s) of job classified under this code:

- Electromagnetic compatibility (EMC) engineer
- Electronics design engineer
- Microelectronics (MEMS) engineer

Example(s) of job not classified under this code:

- Electronics physicist, see 21110
- Electrical engineer, see 21511
- Instrumentation engineer, see 21525
- Telecommunications engineer, see 21532
- Electronics draughtsperson, see 31182

Occupation 21522 Computer engineer

Computer engineer researches on, designs and develops computer hardware systems and components, such as circuit boards, modems, and printers. He/she draughts blueprints and assembly drawings, develops and tests the prototypes, and supervises the process of production, maintenance and repair of hardware and components.

Example(s) of job classified under this code:

- IT hardware engineer

Example(s) of job not classified under this code:

- Computer software engineer, see 25121

Occupation 21523 Semi-conductor engineer

Semi-conductor engineer designs and develops the layout for integrated circuits according to electronics engineering principles, using software to create design schematics and diagrams. He/she may also provide advice on aspects of semi-conductor process technology and maintain and repair semi-conductor process equipment.

Example(s) of job classified under this code:

- Wafer fabrication plant engineer

Occupation 21524 Audio/Video equipment engineer

Audio/Video equipment engineer researches on, designs and develops audio or video equipment and components. He/she may support and advise on the coordination and setup of audio or video equipment, including installation, configuration, monitoring, maintenance.

Example(s) of job classified under this code:

- Antenna engineer
- Audiology engineer
- Television engineer

Example(s) of job not classified under this code:

- Media/Broadcast engineer, see 21531
- Telecommunications engineer, see 21532

Occupation 21525 Instrumentation engineer

Instrumentation engineer designs and develops apparatus, procedures, equipment and systems used for controlling and monitoring manufacturing systems, machinery uses and production processes. He/she oversees the installation, calibration, commissioning and maintenance of these equipment and instruments and ensures compliance with relevant health and safety regulations and quality standards to support continuous manufacturing activities.

Example(s) of job classified under this code:

- Instrumentation and control (IC) engineer
- Supervisory control and data acquisition (SCADA) engineer

Example(s) of job not classified under this code:

- Electronics design engineer, see 21521

Occupation 21526 Embedded systems engineer

Embedded systems engineer researches on, designs and develops embedded systems to integrate into other hardware systems. He/she implements and maintains the hardware and software for the embedded platform and assists in the development of customised embedded solutions, as well as tests and debugs the embedded software and applications. He/she also participates in design review, and develops tools and techniques for testing and verifying the integration of the embedded systems into other hardware systems.

Example(s) of job classified under this code:

- Port systems engineer

Unit Group 2153 Telecommunications Engineers

Telecommunications engineers conduct research and advise on, design, and direct the construction of the functioning, maintenance and repair of telecommunication systems and equipment. They study and advise on technological aspects of telecommunication engineering materials, products or processes.

Tasks include:

- advising on and designing telecommunications devices or components, systems, equipment and distribution centres
- specifying production or installation methods, materials, quality and safety standards and directing production or installation work of telecommunications products and systems
- organising and directing maintenance and repair of existing telecommunication systems, motors and equipment
- researching and advising on telecommunications equipment
- planning and designing communications networks based on wired, fibre optical and wireless communication media
- designing telecommunications networks and radio and television distribution systems, including both cable and over the air

Occupation(s) in this Unit Group:

- 21531 Media/Broadcast engineer
- 21532 Telecommunications engineer

Occupation 21531 Media/Broadcast engineer

Media/Broadcast engineer conducts research and advises on, designs, and directs the construction of the functioning, maintenance and repairs of media and broadcasting infrastructure and equipment. He/she studies and advises on technological aspects of media and broadcasting engineering materials, products or processes.

Example(s) of job classified under this code:

- Broadcast engineer

Example(s) of job not classified under this code:

- Television engineer, see 21524

Occupation 21532 Telecommunications engineer

Telecommunications engineer studies, designs and advises on telecommunications systems and equipment, and plans and supervises their development, construction, installation, operation, maintenance and repair. He/she plans and designs telecommunications devices or components, systems, equipment and distribution centres and communication networks, and specifies the production or installation methods, materials, quality and safety standards.

Example(s) of job classified under this code:

- Fibre optics engineer
- Radio frequency identification device (RFID) engineer

Example(s) of job not classified under this code:

- Signal systems engineer (electrical), see 21511
- Electronics engineer, see 21521
- Antenna engineer, see 21524

MINOR GROUP 216 ARCHITECTS, PLANNERS, SURVEYORS AND DESIGNERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2161 Building Architects
- 2162 Landscape Architects and Designers
- 2163 Fashion and Product Designers
- 2164 Urban and Related Planners
- 2165 Surveyors and Cartographers
- 2166 Graphic and Multimedia Designers and Artists
- 2167 Service Designers

Unit Group 2161 Building Architects

Building architects design commercial, industrial, institutional, residential and recreational buildings and plan and monitor their construction, maintenance and rehabilitation.

Tasks include:

- developing new or improved architectural theories and methods
- inspecting sites and consulting clients, management and other stakeholders to determine type, style and size of proposed buildings and alterations to existing buildings
- providing information regarding designs, materials and estimated building times
- preparing project documentation, including sketches and scale drawings, and integrating structural, mechanical and aesthetic elements in final designs
- writing specifications and contract documents for use by builders and calling tenders on behalf of clients
- making necessary contacts to ensure feasibility of projects regarding style, cost, timing, and compliance with regulations
- identifying and finding best solutions for problems regarding function and quality of interior environments of buildings and making necessary designs, drawings and plans
- monitoring construction or rehabilitation work to ensure compliance with specifications and quality standards
- maintaining technical liaison and consultancy with other relevant specialists

Occupation(s) in this Unit Group:

- 21610 Building architect

Occupation 21610 Building architect

Building architect designs commercial, industrial, institutional, residential and recreational buildings and plans and monitors their construction, maintenance and rehabilitation. He/she consults with client to ascertain type and style of building required and advises on cost, design, materials, building time and other relevant considerations.

Example(s) of job classified under this code:

- Architectural designer

Example(s) of job not classified under this code:

- Architectural engineer, see 21422
- Landscape architect, see 21621
- Town planner, see 21641
- Architectural draughtsperson, see 31184

- Interior designer, see 34321

Unit Group 2162 Landscape Architects and Designers

Landscape architects and designers plan and design landscapes and open spaces for projects such as, parks, schools, institutions, roads, external areas for commercial, industrial and residential sites. They also plan and monitor their construction, maintenance and rehabilitation.

Tasks include:

- developing new or improved theories and methods in landscape architecture
- inspecting sites and consulting clients, management and other stakeholders to determine type, style and size of proposed buildings, parks, roads and other open spaces
- compiling and analysing site and community data about geographical and ecological features, landforms, soils, vegetation, site hydrology, visual characteristics and human-made structures, to formulate land use and development recommendations, and for preparing environmental impact statements
- preparing reports, site plans, working drawings, specifications and cost estimates for land development, showing location and details of proposals, including ground modelling, structures, vegetation and access
- writing specifications and contract documents for use by builders and civil engineering contractors and calling tenders on behalf of clients
- making necessary contacts to ensure feasibility of projects regarding style, cost, timing and compliance with regulations
- identifying and finding best solutions for problems regarding function and quality of exterior environments and making necessary designs, drawings and plans
- monitoring construction or rehabilitation work to ensure compliance with specifications and quality standards
- maintaining technical liaison and consultancy with other relevant specialists

Occupation(s) in this Unit Group:

- 21621 Landscape architect
- 21622 Landscape designer

Occupation 21621 Landscape architect

Landscape architect plans and designs landscape and harmonises improvements with existing land features, buildings and proposed structures. He/she consults with clients, engineers and architects on overall programme, studies site conditions such as nature of soil, vegetation, rock features, drainage and location of buildings.

Example(s) of job classified under this code:

- Landscape artist

Example(s) of job not classified under this code:

- Building architect, see 21610
- Landscape designer, see 21622
- Town planner, see 21641

Occupation 21622 Landscape designer

Landscape designer designs and creates outdoor public areas, landmarks, structures, parks, gardens and private gardens to achieve environmental, social-behavioural, or aesthetic outcomes.

Example(s) of job classified under this code:

- Garden designer

Example(s) of job not classified under this code:

- Landscape architect, see 21621

Unit Group 2163 Fashion and Product Designers

Fashion and product designers design and develop products for manufacture and prepare designs and specifications of products for mass, batch and one-off production.

Tasks include:

- determining the objectives and constraints of the design brief by consulting with clients and stakeholders
- formulating design concepts for clothing, textiles, industrial, commercial and consumer products, and jewellery harmonising aesthetic considerations with technical, functional and production requirements
- preparing sketches, diagrams, illustrations, plans, samples and models to communicate design concepts
- negotiating design solutions with clients, management, and sales and manufacturing staff
- selecting, specifying and recommending functional and aesthetic materials, production methods and finishes for manufacture
- detailing and documenting the selected design for production
- preparing and commissioning prototypes and samples
- supervising the preparation of patterns, programmes and tooling, and the manufacturing process

Occupation(s) in this Unit Group:

- 21631 Fashion designer
- 21632 Product/Industrial designer

Occupation 21631 Fashion designer

Fashion designer designs clothing and accessories by analysing and interpreting fashion trends to propose new ideas with high aesthetical value. He/she performs forecasting and market research to put together collections lines by operating mood or concept boards, colour palettes, materials, drawings and sketches.

Example(s) of job classified under this code:

- Clothes designer
- Costume designer
- Dress designer
- Jewellery designer

Occupation 21632 Product/Industrial designer

Product/Industrial designer creates designs for industrial and commercial products, harmonising aesthetic considerations with technical and other requirements. He/she studies the purpose, technical specifications, cost limitations, available materials and methods of production, preferences of potential users and other factors influencing the design of products such as furniture, clothing, textiles, pottery, domestic appliances, vehicles and packaging containers.

Example(s) of job classified under this code:

- Commercial products designer
- Furniture designer
- Package designer
- Textile designer

Example(s) of job not classified under this code:

- Industrial machinery/tools engineer, see 21442
- Urban design architect, see 21641

Unit Group 2164 Urban and Related Planners

Urban and related planners develop and implement plans and policies for the controlled use of urban and rural land. They conduct research and provide advice on economic, environmental and social factors affecting land use.

Tasks include:

- planning layout and coordinating development of urban areas
- compiling and analysing data on economic, legal, political, cultural, demographic, sociological, physical and environmental factors affecting land use
- conferring with government authorities, communities and specialists in fields such as architecture, planning, social science, the environment and the law
- devising and recommending use and development of land, and presenting narrative and graphic plans, programmes and designs to groups and individuals
- advising governments, companies and communities on urban and regional planning issues and proposals
- reviewing and evaluating environmental impact reports
- planning layout and coordinating development of urban areas
- planning and the development of land areas for parks, schools, institutions, airports, roadways and related projects, and for commercial, industrial and residential sites
- planning and advising on routing and control of road traffic and public transportation systems for efficiency and safety

Occupation(s) in this Unit Group:

- 21641 Urban planner
- 21649 Urban and related planner n.e.c.

Occupation 21641 Urban planner

Urban planner plans layout and coordinates development of urban areas in addition to arranging and supervising collection of data on economic, social, physical and other factors relative to development of area. He/she analyses data to ascertain the nature, extent and rate of an area's growth and development, and consults with appropriate specialists to prepare plans for area development, including zoning of industrial, commercial and residential areas and location of recreational, educational and other community facilities.

Example(s) of job classified under this code:

- Environmental designer
- Town planner
- Urban design architect
- Urban land planner

Example(s) of job not classified under this code:

- Building construction project engineer, see 21422
- Building architect, see 21610

- Landscape architect, see 21621
- Industrial designer, see 21632

Occupation 21649 Urban and related planner n.e.c.

This group covers urban and related planner not elsewhere classified.

Example(s) of job classified under this code:

- Land planner
- Traffic planner

Unit Group 2165 Surveyors and Cartographers

Surveyors and cartographers determine the exact position of, or prepare and revise digital, graphic and pictorial maps, charts other visual representation of, natural and constructed features and boundaries of land, seas, underground areas and celestial bodies, applying scientific and mathematical principles.

Tasks include:

- surveying, measuring and describing land surfaces, mines, underground surfaces, sea, river and lake beds
- noting exact position of various features and recording survey data in digital form
- making charts and maps to be used in determining navigable waters and channels and in planning construction of marine structures
- planning and conducting aerial photographic surveys
- designing, compiling and revising maps and charts using aerial and other photographs, satellite imagery, survey documents and data, existing maps and records, reports and statistics
- undertaking research and development of surveying and photogrammetric measurement systems, cadastral systems and land information systems
- studying and advising on technical, aesthetic and economic aspects of map production
- maintaining technical liaison and consultancy with other relevant specialists

Occupation(s) in this Unit Group:

- 21651 Land surveyor
- 21652 Hydrographic surveyor
- 21659 Surveyor/Cartographer n.e.c.

Occupation 21651 Land surveyor

Land surveyor specialises in surveying land surfaces to determine boundaries and exact locations, delineates topographic features and man-made structures and otherwise measure land areas for such purposes as mapmaking and construction work. He/she creates detailed drawings and administers project survey data along with maintaining and servicing of survey instruments.

Example(s) of job classified under this code:

- Cadastral surveyor
- Geodetic surveyor
- Topographical surveyor

Example(s) of job not classified under this code:

- Quantity surveyor, see 21494
- Quantity surveying technician, see 31294

Occupation 21652 Hydrographic surveyor

Hydrographic surveyor specialises in surveying sea, river and lake beds to delineate underwater topographic features for purposes including chart making. He/she determines navigable channels and plans construction and repair of harbours, piers, break waters and other marine structures.

Example(s) of job classified under this code:

- Hydraulic surveyor

Occupation 21659 Surveyor/Cartographer n.e.c.

This group covers surveyor/cartographer not elsewhere classified.

Example(s) of job classified under this code:

- Aerial surveyor
- Engineering surveyor
- Marine cartographer
- Photogrammetrist
- Photographic surveyor

Example(s) of job not classified under this code:

- Quantity surveyor, see 21494
- Marine surveyor, see 31213

Unit Group 2166 Graphic and Multimedia Designers and Artists

Graphic and multimedia designers and artists design information content using print, film, electronic, digital and other forms of visual and audio media. They create graphics, special effects, animation, or other visual images for use in movies, television, music videos, print media and advertisements.

Tasks include:

- determining the objectives and constraints of the design brief by consulting with clients and stakeholders
- undertaking research and analysing functional communication requirements
- formulating design concepts for the subject to be communicated
- preparing sketches, diagrams, illustrations and layouts to communicate design concepts
- designing complex graphics and animation to satisfy functional, aesthetic and creative requirements of the design brief
- creating two-dimensional and three-dimensional images depicting objects in motion or illustrating a process, using computer animation or modelling programmes
- negotiating design solutions with clients, management, sales and production staff
- selecting, specifying or recommending functional and aesthetic materials and media for publication, delivery or display
- detailing and documenting the selected design for production
- supervising or carrying out production in the chosen media

Occupation(s) in this Unit Group:

- 21661 Graphic designer
- 21662 Multimedia designer/artist/animator
- 21669 Graphic/Multimedia designer/artist n.e.c.

Occupation 21661 Graphic designer

Graphic designer conceptualises, develops and refines design solutions according to design briefs. He/she designs and produces applied design artwork, illustrations and graphic documents using a range of manual and digital techniques and media to communicate concepts and ideas.

Example(s) of job classified under this code:

- Advertising illustrator
- Graphic artist
- Internet graphic designer

Occupation 21662 Multimedia designer/artist/animator

Multimedia designer/artist/animator conceptualises, develops and refines creative communication by utilising computer technologies to create special effects, animation and live video content for a diverse array of media (e.g. movies, music videos, social media and commercials). He/she creates graphics, 2D and 3D animations, and edits videos. He/she develops storyboards that map out key scenes in the animation and researches on upcoming projects to help create a realistic design or animation. He/she may also ensure the synchronization and integration of multimedia contents.

Example(s) of job classified under this code:

- Animator
- Computer games artist
- Computer graphics (CG) modeller
- Three-dimensional multimedia modeller
- Visual effects artist

Example(s) of job not classified under this code:

- Computer games designer, see 25123
- Games sound designer, see 25123
- Multimedia developer, see 25123
- Multimedia programmer (excluding games), see 25141

Occupation 21669 Graphic/Multimedia designer/artist n.e.c.

This group covers graphic/multimedia designer/artist not elsewhere classified.

Example(s) of job not classified under this code:

- Advertising illustrator, see 21661
- Games sound designer, see 25123
- Virtual reality developer, see 25123
- Interior designer, see 34321

Unit Group 2167 Service Designers

Service designers design solutions to enhance consumers' experience across various touch-points. They analyse customers' interactions and experiences of a particular product, system or service. They manage the improvement and creation of the associated solutions' artefacts and interfaces.

Tasks include:

- determining the objectives and constraints of the design brief by consulting with clients and stakeholders
- undertaking research and analysing customer's interaction and experience of a particular product, system or service
- working directly with customers and prospects to design end-to-end experiences using participatory and iterative design techniques (including observational studies, customer interviews, task analysis, persona creation, storyboarding, scenario building, user flows, use cases, usability testing), as well as other forms of qualitative and quantitative research to uncover insights, learn about user behaviour and verify design concepts
- formulating design concepts for the subject to be communicated
- communicating design concepts through storytelling and rapid prototyping methods, ranging from paper sketching to digital prototyping (e.g. diagrams, illustrations, layouts)
- preparing sketches, diagrams, illustrations and layouts to communicate design concepts
- designing complex graphics and animation to satisfy functional, aesthetic and creative requirements of the design brief
- negotiating design solutions with clients, management, sales and production staff
- selecting, specifying or recommending functional and aesthetic materials and media for publication, delivery or display
- detailing and documenting the selected design for production
- supervising or carrying out production, and managing the improvement and creation of the associated solutions' artefacts and interfaces

Occupation(s) in this Unit Group:

- 21670 Service designer

Occupation 21670 Service designer

Service designer designs solutions to enhance consumers' experience across various touch-points. He/she analyses consumers' interaction and experience of a particular product, system or service. He/she manages the improvement and creation of the associated solutions' artefacts and interfaces.

Example(s) of job classified under this code:

- Customer experience designer

MINOR GROUP 217 SHIP AND AIRCRAFT RELATED PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2171 Ship Engineers and Related Professionals

- 2172 Aircraft Pilots and Related Professionals

Unit Group 2171 Ship Engineers and Related Professionals

Ship engineers and related professionals command and control the operation of mechanical, electrical and electronic equipment, in order to navigate marine vessels for transporting passengers, mail and freight. They also plan and research to improve existing procedures or existing stock of knowledge.

Tasks include:

- developing, adapting and overseeing the implementation of navigation plans through using complex navigation aids and clear knowledge of local conditions
- adapting departmental plans and priorities to address resource and operational challenges
- planning and arranging all technical maintenance and repairs needed on the vessels
- carrying out vessel inspections and monitor the ship's conditions
- ensuring compliance of vessels with regulations and standards
- researching and implementing new procedures to improve daily operations

Occupation(s) in this Unit Group:

- 21711 Chief/Second engineer (ship)
- 21712 Technical superintendent
- 21713 Ship captain/Chief mate
- 21714 Marine superintendent

Occupation 21711 Chief/Second engineer (ship)

Chief/Second engineer (ship) plans, coordinates and directs engine-room department aboard ship and supervises subordinate marine engineer officers and engine-room ratings. He/she takes complete charge of the operation, maintenance and repair of all mechanical and electrical machinery and equipment on board ship including propulsion engines, boilers, auxiliary, deck machinery, refrigeration and sanitary equipment.

Example(s) of job classified under this code:

- First engineering officer (ship)
- First foreign-going marine engineering officer
- Second foreign-going marine engineering officer
- Second marine engineer

Example(s) of job not classified under this code:

- Third foreign-going marine engineering officer, see 31510

Occupation 21712 Technical superintendent

Technical superintendent oversees the technical/engineering functions of the fleet. He/she plans, controls and executes all activities connected with maintenance, repairs, survey and certificate requirements, dry-docking, conversion or modification of assigned vessels in addition to monitoring and controlling costs of repairs and maintenance while ensuring that all vessels comply with factory, class or charterer requirements.

Example(s) of job classified under this code:

- Marine superintendent engineer
- Technical manager (shipping)

Example(s) of job not classified under this code:

- Marine superintendent, see 21714
- Marine engineering officer, see 31510

Occupation 21713 Ship captain/Chief mate

Ship captain/Chief mate commands and controls the navigation, manoeuvring, cargo handling, stowage, communications and safe handling of the ship. He/she oversees operations and maintenance of all on-board equipment including machinery, engines and safety equipment and monitors the daily progress of the vessel to complete the voyage in a most efficient manner while ensuring that the ship complies with local and international laws, as well as port state and flag state policies.

Example(s) of job classified under this code:

- Ship’s chief officer
- Shipmaster

Occupation 21714 Marine superintendent

Marine superintendent directs or arranges on-shore services such as supply of ships’ stores and equipment, ship inspections and overhauls, crew replacements and navigational information for shipping company vessels arriving in port. He/she orders ship’s stores, deck and navigation equipment and fuel, for delivery according to ship master’s requirements and arranges for inspections, tests and overhauls as required by regulations or company practices.

Example(s) of job not classified under this code:

- Technical superintendent, see 21712

Unit Group 2172 Aircraft Pilots and Related Professionals

Aircraft pilots and related professionals command and control the operation of mechanical, electrical and electronic equipment, in order to navigate aircraft for transporting passengers, mail and freight and perform related pre-flight and in-flight tasks. They also plan and research to improve existing procedures or existing stock of knowledge.

Tasks include:

- applying knowledge of principles and practices of flying in order to identify and solve problems arising in the course of their work
- preparing and submitting flight plan or examining standard flight plan flying and navigating aircraft in accordance with established control and operating procedures
- controlling the operation of mechanical, electrical and electronic equipment and ensuring that all instruments and controls work properly
- examining maintenance records and conducting inspections to ensure that aircraft are mechanically sound, maintenance has been performed and that all equipment is operational
- signing necessary certificates and maintaining official records of flight
- obtaining briefings and clearances before flights and maintaining contact with air traffic or flight control during flight

Occupation(s) in this Unit Group:

- 21721 Commercial airline pilot
- 21722 Aircraft pilot (excluding commercial airline and air force)
- 21723 Flying instructor (excluding air force)
- 21724 Flight engineer
- 21729 Aircraft pilot and related professional n.e.c.

Occupation 21721 Commercial airline pilot

Commercial airline pilot operates and navigates commercial aircraft along planned routes, during take-offs and landings to transport passengers, mail or freight. He/she prepares flight plans, conducts pre-flight checks and briefings, and communicates with air traffic controllers for flight clearance. He/she oversees the safety and security of crew, passengers, and freight on board.

Example(s) of job classified under this code:

- Air transport pilot
- Aircraft captain (air transport)
- Co-pilot (airline)
- First officer (commercial airline)

Notes:

Commercial airline pilot typically holds the CAAS Commercial Pilot License (CPL), CAAS-approved Aircraft Type Rating, CAAS Multi-crew Pilot License (MPL) and CAAS Airline Transport Pilot License (ATPL) or their equivalent.

Occupation 21722 Aircraft pilot (excluding commercial airline and air force)

Aircraft pilot (excluding commercial airline and air force) operates and navigates aircraft for purposes other than passenger, mail or freight transportation, such as for testing or delivering aircraft, spraying insecticides and fungicides for pest control, aerial surveys, aerial photography, and exhibitions of flying skill.

Example(s) of job classified under this code:

- Helicopter pilot (air transport)
- Seaplane pilot
- Test pilot (aircraft)

Occupation 21723 Flying instructor (excluding air force)

Flying instructor (excluding air force) teaches trainee pilots to operate the controls of an aircraft and instructs them in aircraft piloting techniques and procedures. He/she explains use and operation of aircraft components, such as rudder, flaps, ailerons, compass, altimeter and radio and accompanies trainees on training flights while demonstrating techniques for controlling aircraft during taxing, take-off, turns, stalls and landing.

Example(s) of job classified under this code:

- Check pilot

Occupation 21724 Flight engineer

Flight engineer makes pre-flight and post-flight inspection of aircraft engine, other equipment and fuselage as well as observes gauges, meters and other aircraft instruments during flight to detect technical irregularities. He/she monitors fuel gauges and consumption and engine performance, regulates engine speed according to pilot's instructions and keeps pilot-in-command informed if any defects or difficulties occur during flight.

Example(s) of job not classified under this code:

- Air traffic controller, see 31540

Occupation 21729 Aircraft pilot and related professional n.e.c.

This group covers aircraft pilot and related professional not elsewhere classified.

Example(s) of job classified under this code:

- Flight navigator

SUB-MAJOR GROUP 22 HEALTH PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 221 MEDICAL DOCTORS
- 222 NURSING PROFESSIONALS
- 223 TRADITIONAL AND COMPLEMENTARY MEDICINE PROFESSIONALS
- 225 VETERINARIANS
- 226 OTHER HEALTH PROFESSIONALS

Notes:

In using SSOC in applications that seek to identify, describe or measure the health workforce, it should be noted that a number of professions considered to be a part of the health workforce are classified in groups other than Sub-major Group 22 'Health Professionals'. Such occupations include but are not restricted to addictions counsellors, biomedical engineers, clinical psychologists and medical physicists.

MINOR GROUP 221 MEDICAL DOCTORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2211 Generalist Medical Practitioners
- 2212 Specialist Medical Practitioners (Medical)
- 2213 Specialist Medical Practitioners (Surgical)
- 2214 Specialist Medical Practitioners (Other Specialisations)

Unit Group 2211 Generalist Medical Practitioners

Generalist medical practitioners diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments in humans through application of the principles and procedures of modern medicine. They do not limit their practice to certain disease categories or methods of treatment, and may assume responsibility for the provision of continuing and comprehensive medical care to, and the maintenance of general health of, individuals, families and communities. Medical graduates undergoing housemanship are also classified here.

Tasks include:

- conducting physical examinations of patients and interviewing them and their families to determine their health status

- ordering laboratory tests, X-rays and other diagnostic procedures and analysing findings to determine the nature of disorders or illnesses
- providing continuing medical care for patients including prescribing, administering, counselling on and monitoring curative treatments and preventive measures
- performing minor surgery and other clinical procedures
- advising individuals, families and communities on health, nutrition and lifestyle which aid prevention or treatment of disease and disorders
- providing referrals to patients and families for specialised care in hospitals, rehabilitation centres or other types of healthcare centres
- identifying, managing and providing referrals for complications before, during and after childbirth
- recording patients' medical information and history and exchanging information with specialist practitioners and other health workers as required for continuing medical care
- reporting births, deaths and notifiable diseases to government authorities to meet legal and professional requirements
- planning and participating in programmes designed to prevent the occurrence and spread of common diseases

Notes:

Occupations included in this unit group require completion of a university-level degree in basic medical education and clinical training or equivalent for competent performance. Medical interns or residents who are undertaking clinical training in general medicine without any area of specialisation are included here. Although in some countries 'general practice' and 'family medicine' may be considered as medical specialisations, these occupations should always be classified here.

Medical practitioners are required to be registered with the Singapore Medical Council (SMC) or its equivalent and possess a Practising Certificate (PC) in order to practise medicine in Singapore.

Occupation(s) in this Unit Group:

- 22110 General practitioner/physician

Occupation 22110 General practitioner/physician

General practitioner/physician diagnoses, treats and prevents illness, disease, injury, and other physical and mental impairments in humans through application of the principles and procedures of modern medicine. He/she does not limit his/her practice to certain disease categories or methods of treatment, and may assume responsibility for the provision of continuing and comprehensive medical care to, and the maintenance of general health of, individuals, families and communities. Medical graduates undergoing housemanship are also classified here.

Example(s) of job classified under this code:

- General medical practitioner

Example(s) of job not classified under this code:

- Psychiatrist, see 22128
- General surgeon, see 22131
- Public health physician, see 22147

Unit Group 2212 Specialist Medical Practitioners (Medical)

Specialist medical practitioners (medical) diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments in humans, using specialised testing, diagnostic, medical, physical and psychiatric techniques, through application of the principles and procedures of modern medicine. They specialise in certain disease categories, types of patient or methods of treatment and may conduct medical education and research in their chosen areas of specialisation.

Tasks include:

- conducting physical examinations of patients and interviewing them and their families to determine their health status
- considering medical information provided by a referring doctor or other healthcare provider
- ordering specialised diagnostic tests to determine the nature of disorders or illnesses
- prescribing, administering and monitoring patients' responses to treatments, medications, anaesthetics, psychotherapies, physical rehabilitation programmes and other preventive and curative measures
- recording patients' medical information and exchanging information with other health professionals to ensure the provision of comprehensive care
- reporting births, deaths and notifiable diseases to government authorities to meet legal and professional requirements
- providing information to patients and families about preventive measures, treatment and care for specific ailments
- conducting research into specific human disorders and illnesses and preventive or curative methods and disseminating the findings such as through scientific reports
- planning and participating in programmes designed to prevent the occurrence and spread of specific diseases

Notes:

Occupations included in this unit group require completion of a university-level degree in basic medical education plus postgraduate clinical training in a medical specialisation (excluding general practice) or equivalent. Resident medical officers and interns training as specialist practitioners (excluding general practice) are included here.

Medical practitioners are required to be registered with the Singapore Medical Council (SMC) or its equivalent and possess a Practising Certificate (PC) in order to practise medicine in Singapore.

Medical practitioners who wish to practise as a specialist are required to be accredited by the Specialists Accreditation Board (SAB) or its equivalent and registered under the relevant specialty by the Singapore Medical Council (SMC) or its equivalent.

Medical research professionals who participate in biomedical research using living organisms and do not undertake clinical practice are classified in Unit Group 2131 'Biologists, Botanists, Zoologists and Related Professionals'.

Occupation(s) in this Unit Group:

- 22121 Cardiologist
- 22122 Dermatologist
- 22123 Gastroenterologist
- 22124 Internal medicine physician
- 22125 Medical oncologist
- 22126 Paediatrician
- 22127 Respiratory physician
- 22128 Psychiatrist
- 22129 Specialist medical practitioner (medical) n.e.c.

Occupation 22121 Cardiologist

Cardiologist diagnoses, treats, manages and prevents diseases or conditions of the cardiovascular system of a non-surgical nature. He/she may further subspecialise in interventional procedures (e.g. balloon angioplasty and stent placement), echocardiography, or electrophysiology.

Example(s) of job not classified under this code:

- Cardiothoracic surgeon, see 22132

Occupation 22122 Dermatologist

Dermatologist diagnoses and treats diseases relating to the skin, hair, and nails. He/she may perform both medical and dermatological surgery functions.

Occupation 22123 Gastroenterologist

Gastroenterologist investigates, diagnoses and treats diseases and disorders of the human liver, stomach and associated organs.

Occupation 22124 Internal medicine physician

Internal medicine physician diagnoses and provides non-surgical treatment for a wide range of diseases and injuries of internal organ systems. He/she provides care mainly for adults and adolescents, and is based primarily in an outpatient care setting.

Example(s) of job classified under this code:

- Internal medicine doctor
- Internist

Occupation 22125 Medical oncologist

Medical oncologist manages and treats patients with cancer and tumours using chemotherapy or other medications, such as targeted therapy or immunotherapy.

Example(s) of job classified under this code:

- Cancer specialist

Occupation 22126 Paediatrician

Paediatrician investigates, diagnoses and treats internal diseases and disorders of a non-surgical nature in children from birth up to and including adolescence.

Example(s) of job classified under this code:

- Neonatologist

Occupation 22127 Respiratory physician

Respiratory physician investigates, diagnoses and treats diseases and disorders of the human respiratory system.

Example(s) of job classified under this code:

- Pulmonologist

Occupation 22128 Psychiatrist

Psychiatrist diagnoses, treats, and helps prevent disorders of the mind.

Example(s) of job classified under this code:

- Child psychiatrist
- Consultant psychiatrist

Example(s) of job not classified under this code:

- General medical practitioner, see 22110
- Clinical psychologist, see 26611

Occupation 22129 Specialist medical practitioner (medical) n.e.c.

This group covers specialist medical practitioner (medical) not elsewhere classified.

Example(s) of job classified under this code:

- Endocrinologist
- Geriatrician
- Neurologist
- Nuclear medicine physician
- Renal physician

Example(s) of job not classified under this code:

- General medical practitioner, see 22110
- General surgeon, see 22131
- Anaesthesiologist, see 22141
- Emergency physician, see 22143
- Gynaecologist, see 22144
- General dental practitioner, see 22611

Unit Group 2213 Specialist Medical Practitioners (Surgical)

Specialist medical practitioners (surgical) diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments in humans, using surgical techniques, through application of the principles and procedures of modern medicine. They specialise in certain disease categories, types of patient or methods of treatment and may conduct medical education and research in their chosen areas of specialisation.

Tasks include:

- considering medical information provided by a referring doctor or other healthcare provider
- ordering specialised diagnostic tests to determine the nature of disorders or illnesses
- prescribing, administering and monitoring patients' responses to surgical treatments
- performing surgery of a general or specialised nature
- managing complications before, during and after surgery

- recording patients' medical information and exchanging information with other health professionals to ensure the provision of comprehensive care
- reporting births, deaths and notifiable diseases to government authorities to meet legal and professional requirements
- providing information to patients and families about preventive measures, treatment and care for specific ailments
- conducting research into specific human disorders and illnesses and preventive or curative methods and disseminating the findings such as through scientific reports
- planning and participating in programmes designed to prevent the occurrence and spread of specific diseases

Notes:

Occupations included in this unit group require completion of a university-level degree in basic medical education plus postgraduate clinical training in a medical specialisation (excluding general practice) or equivalent. Resident medical officers and interns training as specialist practitioners (excluding general practice) are included here.

Medical practitioners are required to be registered with the Singapore Medical Council (SMC) or its equivalent and possess a Practising Certificate (PC) in order to practise medicine in Singapore.

Medical practitioners who wish to practise as a specialist are required to be accredited by the Specialists Accreditation Board (SAB) or its equivalent and registered under the relevant specialty by the Singapore Medical Council (SMC) or its equivalent.

Medical research professionals who participate in biomedical research using living organisms and do not undertake clinical practice are classified in Unit Group 2131 'Biologists, Botanists, Zoologists and Related Professionals'.

Occupation(s) in this Unit Group:

- 22131 General surgeon
- 22132 Cardiothoracic surgeon
- 22133 Hand surgeon
- 22134 Neurosurgeon
- 22135 Orthopaedic surgeon
- 22136 Paediatric surgeon
- 22137 Plastic surgeon
- 22138 Urologist
- 22139 Specialist medical practitioner (surgical) n.e.c.

Occupation 22131 General surgeon

General surgeon performs various kinds of surgical operations in the treatment of injuries, diseases and disorders of the human body, and reviews reports of patients' physical condition and medical history. He/she examines patient to determine need for surgery, appropriate operational procedure and when operation should take place in addition to giving instructions regarding the preparation of patient and instruments and other equipment required.

Example(s) of job not classified under this code:

- General medical practitioner, see 22110

Occupation 22132 Cardiothoracic surgeon

Cardiothoracic surgeon specialises in surgical procedures of the heart, lungs, oesophagus, and other organs in the chest.

Example(s) of job classified under this code:

- Thoracic surgeon

Example(s) of job not classified under this code:

- Cardiologist, see 22121

Occupation 22133 Hand surgeon

Hand surgeon diagnoses and performs surgery to treat problems related to the different structures in the hand, wrist, and forearm.

Occupation 22134 Neurosurgeon

Neurosurgeon performs surgery to correct disorders of the brain, spine and nervous system.

Example(s) of job not classified under this code:

- Neurophysiologist, see 21344

Occupation 22135 Orthopaedic surgeon

Orthopaedic surgeon diagnoses and performs surgery to treat and prevent rheumatic and other diseases in the musculoskeletal system.

Occupation 22136 Paediatric surgeon

Paediatric surgeon provides surgical care and treatment to children from birth up to and including adolescence.

Occupation 22137 Plastic surgeon

Plastic surgeon performs surgery to repair and reconstruct muscle and tissue injuries and congenital deformities. He/she may perform cosmetic surgery that is unrelated to medical conditions.

Example(s) of job classified under this code:

- Plastic and reconstructive surgeon

Occupation 22138 Urologist

Urologist diagnoses, treats, and helps prevent benign and malignant medical and surgical disorders of the genitourinary system and the renal glands.

Occupation 22139 Specialist medical practitioner (surgical) n.e.c.

This group covers specialist medical practitioner (surgical) not elsewhere classified.

Example(s) of job classified under this code:

- Specialised surgeon

Example(s) of job not classified under this code:

- Dental surgeon, see 22612

Unit Group 2214 Specialist Medical Practitioners (Other Specialisations)

Specialist medical practitioners (other specialisations) diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments in humans, using specialised testing, diagnostic, medical, surgical, physical and psychiatric techniques, through application of the principles and procedures of modern medicine. They specialise in certain disease categories, types of patient or methods of treatment and may conduct medical education and research in their chosen areas of specialisation.

Tasks include:

- conducting physical examinations of patients and interviewing them and their families to determine their health status
- considering medical information provided by a referring doctor or other healthcare provider
- ordering specialised diagnostic tests to determine the nature of disorders or illnesses
- prescribing, administering and monitoring patients' responses to treatments, medications, anaesthetics, psychotherapies, physical rehabilitation programmes and other preventive and curative measures
- performing surgery of a specialised nature

- managing complications before, during and after childbirth
- recording patients' medical information and exchanging information with other health professionals to ensure the provision of comprehensive care
- reporting births, deaths and notifiable diseases to government authorities to meet legal and professional requirements
- providing information to patients and families about preventive measures, treatment and care for specific ailments
- performing autopsies to determine cause of death
- conducting research into specific human disorders and illnesses and preventive or curative methods and disseminating the findings such as through scientific reports
- planning and participating in programmes designed to prevent the occurrence and spread of specific diseases

Notes:

Occupations included in this unit group require completion of a university-level degree in basic medical education plus postgraduate clinical training in a medical specialisation (excluding general practice) or equivalent. Resident medical officers and interns training as specialist practitioners (excluding general practice) are included here.

Medical practitioners are required to be registered with the Singapore Medical Council (SMC) or its equivalent and possess a Practising Certificate (PC) in order to practise medicine in Singapore.

Medical practitioners who wish to practise as a specialist are required to be accredited by the Specialists Accreditation Board (SAB) or its equivalent and registered under the relevant specialty by the Singapore Medical Council (SMC) or its equivalent.

Medical research professionals who participate in biomedical research using living organisms and do not undertake clinical practice are classified in Unit Group 2131 'Biologists, Botanists, Zoologists and Related Professionals'.

Occupation(s) in this Unit Group:

- 22141 Anaesthesiologist
- 22142 Diagnostic radiologist
- 22143 Emergency physician
- 22144 Obstetrician/Gynaecologist
- 22145 Ophthalmologist
- 22146 Pathologist
- 22147 Public health physician
- 22148 Otorhinolaryngologist/Ear, nose, throat (ENT) specialist
- 22149 Specialist medical practitioner (other specialisation) n.e.c.

Occupation 22141 Anaesthesiologist

Anaesthesiologist administers anaesthesia to patients prior to, during, or after surgery or other medical procedures, while monitoring the patients' condition. He/she also diagnoses and treats acute, chronic and cancer pain.

Example(s) of job classified under this code:

- Anaesthetist

Occupation 22142 Diagnostic radiologist

Diagnostic radiologist plans, prepares and performs diagnostic imaging examinations and post processing, with a wide range of equipment and techniques using X-rays, strong magnetic fields or Magnetic Resonance Imaging (MRI) and high frequency sound (Ultrasound). He/she examines patient anatomy, pathology, clinical history, previous and current medical images to interpret and diagnose health problems in patients.

Example(s) of job classified under this code:

- Radiologist

Example(s) of job not classified under this code:

- Medical physicist, see 21110
- Medical X-ray technician, see 32112

Occupation 22143 Emergency physician

Emergency physician makes immediate medical decisions and acts to prevent death or further disability. He/she provides immediate recognition, evaluation, care, stabilisation, and disposition of patients. He/she may direct emergency medical staff in an emergency department.

Example(s) of job classified under this code:

- Emergency medicine specialist

Occupation 22144 Obstetrician/Gynaecologist

Obstetrician/Gynaecologist provides medical care related to pregnancy or childbirth and diagnosis, treats, and helps to prevent diseases of women, particularly those affecting the reproductive system. He/she may also provide general medical care to women.

Example(s) of job classified under this code:

- Gynaecologist
- Obstetrician

Occupation 22145 Ophthalmologist

Ophthalmologist diagnoses, treats, and helps to prevent diseases and injuries of the eyes and related structures.

Example(s) of job classified under this code:

- Cornea and external disease physician
- Eye specialist

Example(s) of job not classified under this code:

- Optometrist, see 22670
- Dispensing optician, see 32540

Occupation 22146 Pathologist

Pathologist diagnoses the presence and stages of diseases using laboratory techniques and patient specimens. He/she studies the nature, causes and development of diseases. He/she may perform autopsies.

Example(s) of job classified under this code:

- Clinical pathologist
- Histopathologist
- Medical pathologist
- Neuropathologist
- Surgical pathologist

Example(s) of job not classified under this code:

- Blood bank technician, see 32120

Occupation 22147 Public health physician

Public health physician improves the health of communities and reduces the incidence of illness and injury. He/she may set up inoculation clinics or create programmes to control the spread of infectious disease. He/she may also help communities to respond to health threats related to bioterrorism or natural disasters.

Example(s) of job not classified under this code:

- General medical practitioner, see 22110

Occupation 22148 Otorhinolaryngologist/Ear, nose, throat (ENT) specialist

Otorhinolaryngologist/Ear, nose, throat (ENT) specialist performs surgery to correct diseases and disorders of the ear, nose and throat (ENT), and related structures of the head and neck.

Example(s) of job classified under this code:

- Otolaryngologist

Example(s) of job not classified under this code:

- Specialised surgeon, see 22139

Occupation 22149 Specialist medical practitioner (other specialisation) n.e.c.

This group covers specialist medical practitioner (other specialisation) not elsewhere classified.

Example(s) of job classified under this code:

- Industrial physician
- Occupational physician
- Radiation oncologist
- Sports physician

Example(s) of job not classified under this code:

- Exercise physiologist, see 21344
- General medical practitioner, see 22110

MINOR GROUP 222 NURSING PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2220 Nursing Professionals

Unit Group 2220 Nursing Professionals

Nursing professionals provide treatment, support and care services for people who are in need of nursing care due to the effects of ageing, injury, illness or other physical or mental impairment, or potential risks to health. They assume responsibility for the planning and management of the care of patients, including the supervision of other health care workers, working autonomously or in teams with medical doctors and others in the practical application of preventive and curative measures.

Tasks include:

- planning, providing and evaluating nursing care for patients according to the practice and standards of modern nursing

- coordinating the care of patients in consultation with other health professionals and members of health teams
- developing and implementing care plans for the biological, social, and psychological treatment of patients in collaboration with other health professionals
- planning and providing personal care, treatments and therapies including administering medications, and monitoring responses to treatment or care plan
- cleaning wounds and applying surgical dressings and bandages
- monitoring pain and discomfort experienced by patients and alleviating pain using a variety of therapies, including the use of pain-killing drugs
- planning and participating in health education programmes, health promotion and nurse education activities in clinical and community settings
- answering questions from patients and families and providing information about prevention of ill-health, treatment and care
- supervising and coordinating the work of other nursing, health and personal care workers
- conducting research on nursing practices and procedures and disseminating findings such as through scientific papers and reports

Notes:

Nursing professionals are required to be registered/enrolled with the Singapore Nursing Board (SNB) or its equivalent and possess a Practising Certificate (PC) in order to practise nursing/midwifery in Singapore.

Occupation(s) in this Unit Group:

- 22200 Registered nurse and related nursing professional (excluding enrolled nurse)

Occupation 22200 Registered nurse and related nursing professional (excluding enrolled nurse)

Registered nurse and related nursing professional (excluding enrolled nurse) provides professional nursing care and advice in hospitals, clinics, private homes, schools, maternal, child health centres, nurseries or other establishments.

Example(s) of job classified under this code:

- Clinical nurse
- Matron (nursing)
- Nurse midwife
- Nurse educator
- Staff nurse

Example(s) of job not classified under this code:

- Assistant nurse, see 32200
- Enrolled nurse, see 32200
- Veterinary nurse, see 32400
- Healthcare assistant, see 53201
- Nursing aide, see 53202

MINOR GROUP 223 TRADITIONAL AND COMPLEMENTARY MEDICINE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2230 Traditional and Complementary Medicine Professionals

Unit Group 2230 Traditional and Complementary Medicine Professionals

Traditional and complementary medicine professionals maintain health and prevent, diagnose and treat illness, disease, injury, and other physical and mental impairments in humans by applying knowledge, skills and practices acquired through extensive study of theories, beliefs and experiences, originating in specific cultures.

Tasks include:

- conducting physical examinations of patients and interviewing them and their families to determine their health status
- developing and implementing treatment plans using applications such as acupuncture, homoeopathic and herbal medicine
- evaluating and documenting patients' progress through treatment plans
- providing health, nutrition and lifestyle advice
- prescribing natural medicines, such as herbal, mineral and animal extracts, to stimulate the body's capacity for self-healing
- exchanging information about patients with other healthcare workers as needed to ensure continuing and comprehensive healthcare
- conducting research into traditional and complementary medicines and treatments and disseminating findings such as through scientific papers and reports

Notes:

Occupations in traditional and complementary medicine whose practice requires an extensive understanding of the benefits and applications of traditional and complementary therapies, developed as the result of extended formal study of these techniques as well as human anatomy and elements of modern medicine, are classified in Unit Group 2230 'Traditional and Complementary Medicine Professionals'. Those whose practice requires a less extensive understanding based on relatively short periods of formal or informal education and training, or on knowledge passed on

informally from generation to generation are included in Unit Group 3230 'Traditional and Complementary Medicine Associate Professionals'. Practitioners working in the singular application of approaches to herbal medicines, spiritual therapies or manual therapeutic techniques are excluded from Unit Group 2230.

Traditional Chinese Medicine (TCM) professionals are required to be registered with the TCM Practitioners Board (TCMPB) or its equivalent and possess a Practising Certificate (PC) in order to practise TCM in Singapore.

Occupation(s) in this Unit Group:

- 22301 Traditional Chinese Medicine practitioner
- 22302 Traditional Chinese Medicine acupuncturist

Occupation 22301 Traditional Chinese Medicine practitioner

Traditional Chinese Medicine practitioner conducts examinations, makes diagnosis and prescribes herbs or other medicines for treatment of various kinds of diseases and disorders of the human body. He/she advises patient on regimen necessary to preserve or restore health.

Example(s) of job classified under this code:

- Chinese medicine doctor
- Sinseh

Example(s) of job not classified under this code:

- Chiropractor, see 22691
- Osteopath, see 22699
- Bonesetter, see 32300

Occupation 22302 Traditional Chinese Medicine acupuncturist

Traditional Chinese Medicine acupuncturist diagnoses, treats, and prevents disorders by stimulating specific acupuncture points within the body using acupuncture needles. He/she may also use cups, nutritional supplements, therapeutic massage, acupressure, and other alternative health therapies.

Example(s) of job classified under this code:

- Acupressurist

Example(s) of job not classified under this code:

- Bonesetter, see 32300

MINOR GROUP 225 VETERINARIANS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2250 Veterinarians

Unit Group 2250 Veterinarians

Veterinarians diagnose, prevent and treat diseases, injuries and dysfunctions of animals. They may provide care to a wide range of animals or specialise in the treatment of a particular animal group or in a particular specialty area, or provide professional services to commercial firms producing biological and pharmaceutical products.

Tasks include:

- determining the presence and nature of abnormal conditions by physical examination, laboratory testing and through diagnostic imaging techniques including radiography and ultrasound
- treating animals medically and surgically, and administering and prescribing drugs, analgesics, and general and local anaesthetics
- performing surgery, dressing wounds and setting broken bones
- rendering obstetric and dental services to animals
- participating in programmes designed to prevent the occurrence and spread of animal diseases
- inoculating animals against, and testing for, infectious diseases and notifying authorities of outbreaks of infectious animal diseases
- performing autopsies to determine cause of death
- advising clients on health, nutrition and feeding, hygiene, breeding and care of animals
- providing euthanasia services for animals

Notes:

Veterinarians are required to apply for a veterinary licence from the National Parks Board (NParks) or its equivalent in order to practise veterinary medicine in Singapore.

Occupation(s) in this Unit Group:

- 22500 Veterinarian

Occupation 22500 Veterinarian

Veterinarian diagnoses, prevents and treats diseases, injuries and dysfunctions of animals. He/she inoculates animals against diseases and advises on care and breeding of animals. He/she may provide care to a wide range of animals or specialise in the treatment of a particular animal group or in a particular specialty area, or provide professional services to commercial firms producing biological and pharmaceutical products.

Example(s) of job classified under this code:

- Animal doctor
- Animal pathologist
- Animal surgeon

MINOR GROUP 226 OTHER HEALTH PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2261 Dentists
- 2262 Pharmacists
- 2263 Environmental and Occupational Health and Hygiene Professionals
- 2264 Physiotherapists
- 2265 Dietitians and Nutritionists
- 2266 Audiologists and Speech Therapists
- 2267 Optometrists
- 2268 Occupational Therapists
- 2269 Health Professionals Not Elsewhere Classified

Unit Group 2261 Dentists

Dentists diagnose, treat and prevent diseases, injuries and abnormalities of the teeth, mouth, jaws and associated tissues by applying the principles and procedures of modern dentistry. They use a broad range of specialised diagnostic, surgical and other techniques to promote and restore oral health.

Tasks include:

- diagnosing diseases, injuries, irregularities and malformations of teeth and associated structures in the mouth and jaw using a range of methods such as radiographs, salivary tests and medical histories
- providing preventative oral healthcare such as periodontal treatments, fluoride applications and oral health promotion
- providing restorative oral care such as implants, complex crown and bridge restorations, and orthodontics, and repairing damaged and decayed teeth
- providing surgical treatments such as extraction of teeth, biopsy of tissue, and performing orthodontic treatment
- measuring and taking impressions of patients' jaws and teeth in order to determine the shape and size of dental prostheses

- designing, making, and fitting prosthodontic appliances such as space maintainers, bridges, and dentures, or writing fabrication instructions or prescriptions for dental prosthetic technicians
- restoring oral function with removable and fixed oral prostheses
- assisting in diagnosing general diseases having oral manifestations such as diabetes
- educating patients to take care of their mouth and teeth
- supervising dental hygienists, dental assistants and other staff

Notes:

Dentists are required to register with the Singapore Dental Council (SDC) or its equivalent in order to practise dentistry in Singapore.

Occupation(s) in this Unit Group:

- 22611 General dental practitioner
- 22612 Specialised dentist

Occupation 22611 General dental practitioner

General dental practitioner performs diagnostic, preventive and curative services for dental and oral diseases and disorders. He/she examines teeth and oral cavity, using X-ray and other diagnostic tools as necessary, and prepares a plan of treatment. He/she may organise oral health services and advise on public dental health questions.

Example(s) of job classified under this code:

- General dentist

Example(s) of job not classified under this code:

- Oral health therapist, see 32510

Occupation 22612 Specialised dentist

Specialised dentist specialises in giving surgical, medical and other forms of treatment for particular types of dental and oral diseases and disorders. He/she performs tasks similar to those of general dental practitioner but specialises in a particular branch of dentistry, such as prosthodontics, periodontics, orthodontics, pedodontics, endodontics, crown and bridge or oral surgery.

Example(s) of job classified under this code:

- Dental surgeon
- Oral surgeon
- Orthodontist

- Pedodontist
- Periodontist

Unit Group 2262 Pharmacists

Pharmacists store, preserve, compound, and dispense medicinal products and counsel on the proper use and adverse effects of drugs and medicines following prescriptions issued by medical doctors and other health professionals. They contribute to researching, testing preparing, prescribing and monitoring medicinal therapies for optimising human health.

Tasks include:

- receiving prescriptions, checking patients' medicine histories, and ensuring proper dosage and methods of administration and drug compatibility before dispensing
- preparing or supervising the preparation and labelling of liquid medicines, ointments, powders, tablets and other medications to fill prescriptions
- providing information and advice to prescribers and clients regarding drug interactions, incompatibility and contra-indications, side effects, dosage and proper medication storage
- collaborating with other healthcare professionals to plan, monitor, review, and evaluate the quality and effectiveness of the medicine therapy of individual patients, and the effectiveness of particular drugs or therapies
- maintaining prescription files and recording issue of narcotics, poisons and habit-forming drugs
- storing and preserving vaccines, serums and other drugs subject to deterioration; supplying non-prescription medicines, and diagnostic and therapeutic aids
- supervising and coordinating the work of pharmaceutical technicians, and pharmacy sales assistants
- conducting research to develop and improve pharmaceuticals, cosmetics and related chemical products
- conferring with chemists, engineering professionals and other professionals about manufacturing techniques and ingredients
- testing and analysing drugs to determine their identity, purity and strength in relation to specified standards
- evaluating labels, packaging and advertising of drug products
- developing information and risks of particular drugs

Notes:

Pharmacists are required to register with the Singapore Pharmacy Council (SPC) or its equivalent in order to practise pharmacy in Singapore.

Occupation(s) in this Unit Group:

- 22621 Pharmacist (patient care)

- 22629 Pharmacist n.e.c.

Occupation 22621 Pharmacist (patient care)

Pharmacist (patient care) makes or dispenses medicaments and related preparations according to prescriptions or formulae. He/she also performs tests to determine identity, purity and strength of drugs and preserves pharmaceuticals against deterioration.

Example(s) of job classified under this code:

- Druggist
- Retail pharmacist
- Specialist pharmacist

Example(s) of job not classified under this code:

- Pharmaceutical chemist, see 21130
- Pharmacologist, see 21341
- Pharmacy technician, see 32130

Occupation 22629 Pharmacist n.e.c.

This group covers pharmacist not elsewhere classified.

Example(s) of job classified under this code:

- Industrial pharmacist

Unit Group 2263 Environmental and Occupational Health and Hygiene Professionals

Environmental and occupational health and hygiene professionals assess, plan and implement programmes to recognise, monitor and control environmental factors that can potentially affect human health, to ensure safe and healthy working conditions, and to prevent disease or injury caused by chemical, physical, radiological and biological agents or ergonomic factors.

Tasks include:

- developing, implementing and reviewing programmes and policies to promote environmental and occupational health
- preparing and implementing plans and strategies for the safe, economic and suitable disposal of commercial, industrial, medical and household wastes
- implementing prevention programmes and strategies for communicable diseases, food safety, waste water treatment and disposal systems, recreation and domestic water quality, contaminated and hazardous substances

- identifying, reporting and documenting hazards, and assessing and controlling risks in the environment and workplace and advising on compliance with relevant law and regulations
- developing, implementing and monitoring programmes to minimise workplace and environmental pollution involving chemical, physical and biological hazards
- prescribing methods to prevent, eliminate, control, or reduce the exposure of workers, patients, the public and/or the environment to radiological and other hazards
- promoting ergonomic principles within the workplace such as matching furniture, equipment and work activities to the needs of employees
- providing education, information, training, and advice to persons at all levels on aspects of occupational hygiene and environmental health
- recording and investigating injuries and equipment damage, and reporting safety performance
- coordinating arrangements for the compensation, rehabilitation and return to work of injured workers

Notes:

Professionals who assess, plan and implement programmes to monitor or control the impact of human activities on the environment are classified in Unit Group 2133 'Environmental Protection and Related Professionals'.

Occupation(s) in this Unit Group:

- 22631 Occupational health and safety professional
- 22632 Environmental officer (public health)
- 22639 Environmental and occupational health and hygiene professional n.e.c.

Occupation 22631 Occupational health and safety professional

Occupational health and safety professional assesses, plans and implements programmes to recognise, monitor and control factors that can potentially affect human health, and ensures that working conditions are safe and healthy. He/she also promotes ergonomic principles within the workplace such as matching furniture, equipment and work activities to the needs of employees in addition to providing education, information, training, and advice on aspects of occupational hygiene and environmental health.

Example(s) of job classified under this code:

- Occupational hygiene officer

Example(s) of job not classified under this code:

- Environmental officer (environmental protection), see 21331
- Occupational therapist, see 22680
- Environmental inspector (environmental public health), see 32571

- Occupational health and safety inspector, see 32572

Occupation 22632 Environmental officer (public health)

Environmental officer (public health) assesses, plans and implements environmental health policies, prevention programmes and strategies for communicable diseases, food safety, waste water treatment and disposal systems, recreation and domestic water quality, contaminated and hazardous substances. He/she implements and enforces environmental health legislations and regulations.

Example(s) of job classified under this code:

- Environmental health and safety specialist

Example(s) of job not classified under this code:

- Environmental officer (environmental protection), see 21331
- Environmental engineer, see 21430
- Environmental inspector (environmental public health), see 32571

Occupation 22639 Environmental and occupational health and hygiene professional n.e.c.

This group covers environmental and occupational health and hygiene professional not elsewhere classified.

Unit Group 2264 Physiotherapists

Physiotherapists assess, plan and implement rehabilitative programmes that improve or restore human or animal motor functions, maximise movement ability, relieve pain syndromes, and treat or prevent physical challenges associated with injuries, diseases and other impairments. They apply a broad range of physical therapies and techniques such as movement, ultrasound, heating, laser and other techniques.

Tasks include:

- administering muscle, nerve, joint and functional ability tests to identify and assess physical problems of patients or clients
- establishing treatment goals with patients or clients and designing treatment programmes to address patients' problems
- treating patients to reduce pain, improve circulation, strengthen muscles, improve cardiothoracic, cardiovascular and respiratory functions, restore joint mobility, and improve balance and coordination
- working alongside other health professionals, such as veterinarians, during the treatment of the animals' ailments

- using the therapeutic properties of exercise, heat, cold, massage, manipulation, hydrotherapy, electrotherapy, ultraviolet and infra-red light and ultrasound in the treatment of patients
- reviewing, continually monitoring, assessing and evaluating programmes and treatments
- instructing patients and their families in procedures to be continued at home
- recording information on patients' health status and responses to treatment in medical records keeping systems, and sharing information with other health professionals as required to ensure continuing and comprehensive care
- developing and implementing programmes for screening and prevention of common physical ailments and disorders

Notes:

Physiotherapists involved in the treatment of human ailments are required to register with the Allied Health Professions Council (AHPC) or its equivalent in order to practise in Singapore. Veterinary physiotherapists are not regulated under the AHPC.

Occupation(s) in this Unit Group:

- 22640 Physiotherapist

Occupation 22640 Physiotherapist

Physiotherapist assesses, plans and implements rehabilitative programmes that improve or restore human or animal motor functions, maximise movement ability, relieve pain syndromes, and treat or prevent physical challenges associated with injuries, diseases and other impairments. He/she applies a broad range of physical therapies and techniques such as movement, ultrasound, heating, laser and other techniques. He/she administers muscle, nerve, joint and functional ability tests to identify and assess physical problems of patients or clients.

Example(s) of job classified under this code:

- Physical therapist
- Sports physical therapist
- Veterinary physiotherapist

Example(s) of job not classified under this code:

- Occupational therapist, see 22680
- Chiropractor, see 22691
- Podiatrist, see 22692
- Diagnostic radiographer, see 22693
- Osteopath, see 22699
- Massage therapist, see 32551

- Physiotherapy technician, see 32559

Unit Group 2265 Dietitians and Nutritionists

Dietitians and nutritionists assess, plan and implement programmes to enhance the impact of food and nutrition on human health.

Tasks include:

- instructing individuals, families and communities on nutrition, the planning of diets and preparation of food to maximise health benefits and reduce potential risks to health
- planning diets and menus, supervising the preparation and serving of meals and monitoring food intake and quality to provide nutritional care in settings offering food services
- compiling and assessing data relating to health and nutritional status of individuals, groups and communities based on nutritional values of food served or consumed
- planning and conducting nutrition assessments, intervention programmes, and education and training to improve nutritional levels among individuals and communities
- consulting with other health professionals and care providers to manage the dietary and nutritional needs of patients
- developing and evaluating food and nutrition products to meet nutritional requirements
- conducting research on nutrition and disseminating the findings such as at scientific conferences

Occupation(s) in this Unit Group:

- 22651 Dietitian
- 22652 Nutritionist

Occupation 22651 Dietitian

Dietitian plans and supervises the preparation of therapeutic or other diets for individuals or for groups in hospitals, institutions and other establishments. He/she gives instruction in selection and proper preparation of food according to dietetic principles and performs duties related to nutrition programmes.

Example(s) of job classified under this code:

- Diet therapist
- Health advisor (nutrition)
- Sports dietitian
- Therapeutic dietitian

Example(s) of job not classified under this code:

- Nutritionist, see 22652

Occupation 22652 Nutritionist

Nutritionist appraises various factors related to nutrition and food problems. He/she studies the nutritional value of foodstuffs and dishes, and advises on the composition of different meals or dishes. He/she plans and executes nutrition elements of health programmes. He/she may investigate the state of nutrition in the community and serve as nutrition adviser to health programmes.

Example(s) of job classified under this code:

- Public health nutritionist
- Sports nutritionist

Example(s) of job not classified under this code:

- Dietitian, see 22651

Unit Group 2266 Audiologists and Speech Therapists

Audiologists and speech therapists diagnose, manage and treat physical disorders affecting human hearing, speech, communication and swallowing. They prescribe corrective devices or rehabilitative therapies for hearing loss, speech disorders, and related sensory and neural problems and provide counselling on hearing safety and communication performance.

Tasks include:

- evaluating hearing and speech/language disorders to determine diagnosis and courses of treatment
- administering hearing or speech/language evaluations, tests or examinations to patients to collect information on type and degree of impairment, using specialised instruments and electronic equipment
- interpreting audiometric test results alongside other medical, social and behavioural diagnostic data
- planning, directing and participating in counselling, speech, reading and other rehabilitation programmes
- recommending hearing aids and other assistive devices according to clients' needs and instructing them in their use
- planning and conducting programmes of remedial exercise to correct disorders such as stuttering and abnormal articulation
- counselling and guiding hearing and/or language-handicapped individuals, their families, teachers and employers
- referring clients to additional medical or educational services if needed

Occupation(s) in this Unit Group:

- 22661 Audiologist

- 22662 Speech therapist

Occupation 22661 Audiologist

Audiologist assesses, diagnoses and treats patients with audiological and vestibular disorders caused by infectious, genetic, traumatic or degenerative conditions such as hearing loss, tinnitus, dizziness, imbalance, hyperacusis and auditory processing difficulties. He/she interprets audiometric test results alongside other medical, social and behavioural diagnostic data.

Example(s) of job classified under this code:

- Audiology specialist
- Hearing therapist

Occupation 22662 Speech therapist

Speech therapist focuses on the aetiology, assessment, diagnosis, treatment, and prevention of communication and swallowing disorders in people of all ages in order to help them maintain, promote, improve, initiate, or recover the ability to communicate both verbally and nonverbally. He/she addresses the development of language, speech, vocal and hearing functions, and disorders and disabilities in the cranial, facial, and oral area.

Example(s) of job classified under this code:

- Language therapist
- Speech clinician
- Speech pathologist

Notes:

Speech therapist is required to register with the Allied Health Professions Council (AHPC) or its equivalent in order to practise in Singapore.

Unit Group 2267 Optometrists

Optometrists provide diagnosis, management and treatment services for disorders of the eyes and visual system. They counsel on eye care and prescribe optical aids or other therapies for visual disturbance.

Tasks include:

- examining patients' eyes and setting tests to determine the nature and extent of vision problems and abnormalities

- assessing ocular health and visual function by measuring visual acuity and refractive error, and testing the function of visual pathways, visual fields, eye movements, freedom of vision and intraocular pressure, and performing other tests using special eye test equipment
- detecting, diagnosing and managing eye disease, and prescribing medications for the treatment of eye disease
- consulting with and referring patients to ophthalmologist or other health care practitioner if additional medical treatment is determined necessary
- diagnosing eye movement disorders and defects of binocular function
- prescribing lenses, contact lenses and low vision aids and checking suitability and comfort
- prescribing exercises to coordinate movement and focusing of eyes
- managing programmes for eye movement disorders, and instructing and counselling patients in the use of corrective techniques and eye exercises
- advising on visual health matters such as contact lens care, vision care for the elderly, optics, visual ergonomics and occupational and industrial eye safety

Notes:

Optometrists are required to register with the Optometrists and Opticians Board (OOB) or its equivalent in order to practise in Singapore.

Occupation(s) in this Unit Group:

- 22670 Optometrist

Occupation 22670 Optometrist

Optometrist provides diagnosis, management and treatment services for disorders of the eyes and visual system. He/she counsels on eye care and prescribes optical aids or other therapies for visual disturbance. He/she advises on visual health matters such as contact lens care, vision care for the elderly, optics, visual ergonomics and occupational and industrial eye safety.

Example(s) of job classified under this code:

- Oculist
- Orthoptist

Example(s) of job not classified under this code:

- Ophthalmologist, see 22145
- Optician, see 32540

Unit Group 2268 Occupational Therapists

Occupational therapists help people of all ages to improve their ability to perform tasks in their daily living and working environments. They work with individuals who have conditions that are physically, developmentally, socially or emotionally disabling. They also help them to develop, recover, or maintain daily living and work skills. Occupational therapists help clients not only to improve their basic motor functions and reasoning abilities, but also to compensate for permanent loss of function.

Tasks include:

- assessing patients or clients to determine the nature of the disorder, illness or problem by questioning, examining and observing
- developing and implementing treatment plans and evaluating and documenting patients' progress through treatment plans
- assessing functional limitations of people resulting from illnesses and disabilities, and providing therapy to enable people to perform their daily activities and occupations
- assessing clients' emotional, psychological, developmental and physical capabilities using clinical observations and standardised tests
- assessing clients' functional potential in their home, leisure, work and school environments and recommending environmental adaptations to maximise their performance
- planning and directing programmes through the use of vocational, remedial, social, artistic and educational activities on an individual and group basis

Notes:

Occupational therapists are required to register with the Allied Health Professions Council (AHPC) or its equivalent in order to practise in Singapore.

Occupation(s) in this Unit Group:

- 22680 Occupational therapist

Occupation 22680 Occupational therapist

Occupational therapist helps people of all ages to improve their ability to perform tasks in their daily living and working environments. He/she works with individuals who have conditions that are physically, developmentally, socially or emotionally disabling. He/she also helps them to develop, recover, or maintain daily living and work skills. He/she helps clients not only to improve their basic motor functions and reasoning abilities, but also to compensate for permanent loss of function.

Example(s) of job classified under this code:

- Ergotherapist

Example(s) of job not classified under this code:

- Occupational health professional, see 22631

- Physical therapist, see 22640
- Recreational therapist, see 22699
- Electrotherapist, see 32559

Unit Group 2269 Health Professionals Not Elsewhere Classified

This unit group covers health professionals not elsewhere classified.

Tasks include:

- interviewing patients and conducting diagnostic tests to determine their health status, functional limitations, and the nature of physical or mental disorders, illnesses or other health problems
- assessing patients or clients to determine the nature of the disorder, illness or problem by questioning, examining and observing
- developing and implementing treatment plans and evaluating and documenting patients' progress through treatment plans
- assessing health of patients, determining need for assistance, and assessing specialised needs and factors affecting patients' conditions
- administering therapeutic care and treatment to patients, including through application of manual and physical chiropractic and osteopathic techniques
- identifying and prescribing treatment for conditions affecting the foot, ankle and related structure of the leg due to illness, disease or other physical impairment, and prescribing corrective footwear and advising on foot care to manage foot ailments
- assessing patient condition and determining appropriate modification of imaging techniques independently
- performing limited minimally invasive procedures (e.g. intravenous cannulation, contrast/radioisotope/radiotracer administration, insertion of rectal enema tube) with appropriate patient assessment for risk factors and contraindications and applying mitigating measures to prevent and/or manage associated complications
- evaluating and recommending appropriate patient's set-up or immobilisation devices for simulation and treatment procedures
- designing of optimal treatment plan specific to each patient's anatomy and diagnosis
- calculating, measuring and recording radiation dosage or radiopharmaceuticals received, used and disposed, using computer and following prescription
- detecting and mapping radiopharmaceuticals in patients' bodies, using a camera to produce photographic or computer images
- administering radiopharmaceuticals or radiation to patients to detect or treat diseases, using radioisotope equipment

- disposing of radioactive materials and storing radiopharmaceuticals, following radiation safety procedures

Notes:

Chiropractic and osteopathy might be considered to have the attributes of medical specialisations, but practitioners in these disciplines should always be classified here in Singapore's context.

Occupation(s) in this Unit Group:

- 22691 Chiropractor
- 22692 Podiatrist
- 22693 Diagnostic radiographer
- 22694 Radiation therapist
- 22699 Other health professional n.e.c.

Occupation 22691 Chiropractor

Chiropractor relieves illnesses believed due to pressure upon the nervous system at the spine by adjusting joints of the spine. He/she diagnoses disorders by making a structural analysis of body, using manipulative and laboratory or instrumental methods and corrects the position of displaced vertebrae by manipulation.

Example(s) of job classified under this code:

- Musculoskeletal therapist

Example(s) of job not classified under this code:

- Traditional Chinese Medicine (TCM) practitioner, see 22301
- Physical therapist, see 22640
- Electrotherapist, see 32559

Occupation 22692 Podiatrist

Podiatrist studies foot physiology and pathology from a structural and functional standpoint. He/she assesses, diagnoses, and treats physical, sporting injuries, rehabilitation, medical and surgical problems of the foot and lower limb in clinical practice.

Example(s) of job classified under this code:

- Chiropodist

Example(s) of job not classified under this code:

- Physical therapist, see 22640

Occupation 22693 Diagnostic radiographer

Diagnostic radiographer plans, prepares and performs diagnostic imaging examinations and post processing, with a wide range of equipment and techniques using X-rays, strong magnetic fields or Magnetic Resonance Imaging (MRI) and high frequency sound (ultrasound).

Example(s) of job classified under this code:

- Magnetic resonance imaging technologist
- Mammographer
- Medical diagnostic radiographer
- Radiologic technologist

Example(s) of job not classified under this code:

- Physical therapist, see 22640
- Medical X-ray technician, see 32112
- Electroencephalograph technician, see 32119

Notes:

Diagnostic radiographer is required to register with the Allied Health Professions Council (AHPC) or its equivalent in order to practise in Singapore.

Occupation 22694 Radiation therapist

Radiation therapist provides radiation therapy to patients as prescribed by a radiation oncologist according to established practices and standards. He/she designs treatment plan and administers prescribed course of radiation treatment. He/she reviews prescription and diagnosis, acting as liaison with physician and supportive care personnel.

Example(s) of job classified under this code:

- Medical radiation therapist

Example(s) of job not classified under this code:

- Medical physicist, see 21110
- Medical X-ray technician, see 32112
- Electroencephalograph technician, see 32119

Notes:

Radiation therapist is required to register with the Allied Health Professions Council (AHPC) or its equivalent in order to practise in Singapore.

Occupation 22699 Other health professional n.e.c.

This group covers other health professional not elsewhere classified.

Example(s) of job classified under this code:

- Hydrotherapist
- Hypnotherapist
- Music therapist
- Osteopath
- Recreational therapist

Example(s) of job not classified under this code:

- Physical therapist, see 22640
- Occupational therapist, see 22680
- Electrotherapist, see 32559
- Sonographer, see 32111
- Paramedic, see 32591

SUB-MAJOR GROUP 23 TEACHING AND TRAINING PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 231 UNIVERSITY, POLYTECHNIC AND HIGHER EDUCATION TEACHERS
- 232 JUNIOR COLLEGE AND PRE-UNIVERSITY EDUCATION TEACHERS
- 233 VOCATIONAL EDUCATION TEACHERS AND TRAINERS
- 234 SECONDARY EDUCATION TEACHERS
- 235 PRIMARY EDUCATION TEACHERS
- 236 OTHER TEACHING PROFESSIONALS

MINOR GROUP 231 UNIVERSITY, POLYTECHNIC AND HIGHER EDUCATION TEACHERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2310 University, Polytechnic and Higher Education Teachers

Unit Group 2310 University, Polytechnic and Higher Education Teachers

University, polytechnic and higher education teachers prepare and deliver lectures and conduct tutorials in one or more subjects within a prescribed course of study at a university, polytechnic or other higher educational institution. They conduct research, and prepare scholarly papers and books.

Tasks include:

- designing and modifying curricula and preparing courses of study in accordance with requirements
- preparing and delivering lectures and conducting tutorials, seminars and laboratory experiments
- stimulating discussion and independent thought among students
- supervising, where appropriate, experimental and practical work undertaken by students
- administering, evaluating and marking examination papers and tests
- directing research of students or other members of department
- researching into and developing concepts, theories and operational methods for application in industrial and other fields
- preparing scholarly books, papers or articles
- participating in departmental and faculty meetings and in conferences and seminars

Occupation(s) in this Unit Group:

- 23101 University lecturer
- 23102 Polytechnic lecturer
- 23103 Teaching assistant/Tutor in university
- 23109 University/Polytechnic/Higher education teacher n.e.c.

Occupation 23101 University lecturer

University lecturer prepares and delivers lectures while conducting tutorials, seminars and laboratory experiments in one or more subjects within a prescribed course of study at a university. He/she supervises and grades experimental, practical work and examinations undertaken by students in addition to conducting academic research and publishing his/her findings in his/her respective field.

Example(s) of job classified under this code:

- University teacher

Example(s) of job not classified under this code:

- Dean (institute of higher learning), see 13459
- Language instructor (extracurriculum), see 36201

Occupation 23102 Polytechnic lecturer

Polytechnic lecturer prepares and delivers lectures while conducting tutorials, seminars and laboratory experiments in one or more subjects within a prescribed course of study at a polytechnic. He/she supervises and grades experimental, practical work and examinations undertaken by students in addition to conducting academic research and publishing his/her findings in his/her respective field.

Example(s) of job classified under this code:

- Polytechnic teacher

Example(s) of job not classified under this code:

- Vocational education teacher, see 23300

Occupation 23103 Teaching assistant/Tutor in university

Teaching assistant/Tutor in university is employed on a temporary contract at a university for teaching-related responsibilities. He/she assists the professor, lecturer or teacher of the specific course they are in charge of in the preparation of lectures and of exams, grading papers and exams and leading review and feedback sessions for the students.

Example(s) of job classified under this code:

- University teaching assistant
- University tutor

Occupation 23109 University/Polytechnic/Higher education teacher n.e.c.

This group covers university/polytechnic/higher education teacher not elsewhere classified.

Example(s) of job classified under this code:

- Commercial school teacher (higher education)

MINOR GROUP 232 JUNIOR COLLEGE AND PRE-UNIVERSITY EDUCATION TEACHERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2320 Junior College and Pre-University Education Teachers

Unit Group 2320 Junior College and Pre-University Education Teachers

Junior college and pre-university education teachers teach one or more subjects at the junior college or pre-university level.

Tasks include:

- designing and modifying curricula and preparing educational courses of study in accordance with curriculum guidelines
- establishing and enforcing rules for behaviour and procedures for maintaining order among students
- preparing and giving lessons, discussions, and demonstrations in one or more subjects
- establishing clear objectives for all lessons, units, and projects and communicating those objectives to students
- preparing materials and classrooms for class activities
- adapting teaching methods and instructional materials to meet students' varying needs and interests
- observing and evaluating students' performance and behaviour
- preparing, administering and marking tests, assignments and examinations to evaluate pupils' progress
- preparing reports about pupils' work and conferring with other teachers and parents
- participating in meetings concerning the school's educational or organisational policies
- planning, organising and participating in school activities such as excursions, sporting events and concerts

Occupation(s) in this Unit Group:

- 23200 Junior college/Pre-university teacher

Occupation 23200 Junior college/Pre-university teacher

Junior college/Pre-university teacher teaches one or more subjects at the junior college or pre-university level.

Example(s) of job classified under this code:

- Integrated programme year 5-6 teacher

Example(s) of job not classified under this code:

- School cluster superintendent, see 13459
- Institute of Technical Education (ITE) teacher, see 23300
- Relief teacher (junior college and pre-university education), see 36991

MINOR GROUP 233 VOCATIONAL EDUCATION TEACHERS AND TRAINERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2330 Vocational Education Teachers and Trainers

Unit Group 2330 Vocational Education Teachers and Trainers

Vocational education teachers and trainers teach or instruct vocational or occupational subjects in adult and further education institutions and to senior students in secondary schools and colleges. They prepare students for employment in specific occupations or occupational areas for which university or higher education is not normally required.

Tasks include:

- developing curricula and planning course content and methods of instruction
- determining training needs of students or workers and liaising with individuals, industry and other education sectors to ensure provision of relevant education and training programmes
- presenting lectures and conducting discussions to increase students' knowledge and competence
- instructing and monitoring students in the use of tools, equipment and materials and the prevention of injury and damage
- observing and evaluating students' work to determine progress, provide feedback, and make suggestions for improvement
- administering oral, written or performance tests to measure progress, evaluate training effectiveness and assess competency
- preparing reports and maintaining records such as student grades, attendance rolls, and training activity details
- supervising independent or group projects, field placements, laboratory work, or other training
- providing individualised instruction and tutorial or remedial instruction

Notes:

Those who teach vocational subjects that are intended to prepare students for employment in a particular occupational group should be classified in Unit Group 2330 'Vocational Education Teachers and Trainers', whether they work in a general secondary school or in a vocational or technical school or college. Those who teach, at secondary education level, subjects such as mathematics that do not aim to prepare students for employment in a specific occupational area, should be classified in Unit Group 2340 'Secondary Education Teachers', even if they are employed in a vocational or technical college.

Occupation(s) in this Unit Group:

- 23300 Technical/Vocational/Commercial education institute teacher/trainer

Occupation 23300 Technical/Vocational/Commercial education institute teacher/trainer

Technical/Vocational/Commercial education institute teacher/trainer teaches or instructs vocational or occupational subjects in adult and further education institutions and to senior students in secondary schools and colleges. He/she prepares students for employment in

specific occupations or occupational areas for which university or higher education is not normally required.

Example(s) of job classified under this code:

- Institute of Technical Education (ITE) teacher
- Secretarial school teacher

Example(s) of job not classified under this code:

- Polytechnic lecturer, see 23102
- Junior college teacher, see 23200
- Language instructor (extracurriculum), see 36201
- Relief teacher (vocational education), see 36991

MINOR GROUP 234 SECONDARY EDUCATION TEACHERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2340 Secondary Education Teachers

Unit Group 2340 Secondary Education Teachers

Secondary education teachers teach one or more subjects at secondary school level.

Tasks include:

- designing and modifying curricula and preparing educational courses of study in accordance with curriculum guidelines
- establishing and enforcing rules for behaviour and procedures for maintaining order among students
- preparing and giving lessons, discussions, and demonstrations in one or more subjects
- establishing clear objectives for all lessons, units, and projects and communicating those objectives to students
- preparing materials and classrooms for class activities
- adapting teaching methods and instructional materials to meet students' varying needs and interests
- observing and evaluating students' performance and behaviour
- preparing, administering and marking tests, assignments and examinations to evaluate pupils' progress
- preparing reports about pupils' work and conferring with other teachers and parents
- participating in meetings concerning the school's educational or organisational policies

- planning, organising and participating in school activities such as excursions, sporting events and concerts

Notes:

Those who teach vocational subjects that are intended to prepare students for employment in a particular occupational group should be classified in Unit Group 2330 'Vocational Education Teachers and Trainers', whether they work in a general secondary school or in a vocational or technical school or college. Those who teach, at secondary education level, subjects such as mathematics that do not aim to prepare students for employment in a specific occupational area, should be classified in Unit Group 2340 'Secondary Education Teachers', even if they are employed in a vocational or technical college.

Occupation(s) in this Unit Group:

- 23400 Secondary school teacher

Occupation 23400 Secondary school teacher

Secondary school teacher teaches one or more subjects at secondary school level.

Example(s) of job classified under this code:

- Integrated programme year 1-4 teacher
- Technical education teacher (secondary school)

Example(s) of job not classified under this code:

- Secondary school principal, see 13451
- School cluster superintendent, see 13459
- Language instructor (extracurriculum), see 36201
- Relief teacher (secondary education), see 36991

MINOR GROUP 235 PRIMARY EDUCATION TEACHERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2350 Primary School Teachers

Unit Group 2350 Primary School Teachers

Primary school teachers teach a range of subjects at the primary school level.

Tasks include:

- preparing daily and longer term lesson plans in accordance with curriculum guidelines

- instructing children individually and in groups, using various teaching methods and materials (e.g. computers, books, games), adapting to children's varying needs
- maintaining discipline and good working habits in the classroom
- planning and conduct activities with the children such as sporting activities, concerts and excursions
- assigning and grading class work and homework
- preparing, administering, and grading tests and assignments to evaluate children's progress
- observing and evaluating children's performance and behaviour
- supervising children during classes and at other times in the school day, including the playground during breaks
- participating in staff meetings and other sessions, and conferring with other teachers concerning educational issues
- preparing for and attending parent meetings to discuss children's progress and problems

Occupation(s) in this Unit Group:

- 23500 Primary school teacher

Occupation 23500 Primary school teacher

Primary school teacher teaches a range of subjects at the primary school level.

Example(s) of job not classified under this code:

- Primary school principal, see 13451
- Preschool educator, see 36100
- Language instructor (extracurriculum), see 36201
- Relief teacher (primary education), see 36991

MINOR GROUP 236 OTHER TEACHING PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2361 Education Methods Specialists
- 2362 Special Education Teachers
- 2369 Teaching Professionals Not Elsewhere Classified

Unit Group 2361 Education Methods Specialists

Education methods specialists conduct research and develop or advise on teaching methods, courses and aids. They review and examine teachers' work, the functioning of educational institutions and the results achieved and recommend changes and improvements.

Tasks include:

- researching into current developments in curricula, teaching methods and other educational practices, and advising on necessary changes and possible improvements
- evaluating and advising on contents of courses and methods of examination
- researching into audio-visual and other teaching aids and advising on, planning and organising their introduction in educational establishments
- documenting subjects and courses developed, and evaluating new courses
- providing ongoing professional development, training and consultative services to teachers
- organising and conducting workshops and conferences to train teachers in new programmes and methods
- developing the structure, content and objectives of new educational courses and programmes
- visiting schools periodically and conferring with administrative and teaching staff on questions relating to curricula, teaching methods, equipment and other matters
- visiting classrooms to observe teaching techniques and to evaluate teacher's performance, and scholastic results obtained
- preparing reports and making recommendations to educational authorities concerning possible changes and improvements in curricula, teaching methods, and other matters

Occupation(s) in this Unit Group:

- 23611 Education methods adviser
- 23612 Instructional designer/technologist
- 23619 Education methods specialist n.e.c.

Occupation 23611 Education methods adviser

Education methods adviser studies curricula, teaching methods and other educational practices, and investigates the effectiveness of established educational practices. He/she advises and makes recommendations to education authorities concerning the introduction of improved methods, procedures and revisions in curricula in addition to organising and directing in-service training seminars or special readaptation courses for teachers.

Example(s) of job classified under this code:

- Educational assessment specialist
- Teaching methods adviser

Example(s) of job not classified under this code:

- Educational psychologist, see 26612
- School counsellor, see 26634

Occupation 23612 Instructional designer/technologist

Instructional designer/technologist develops instructional materials and products and assists in the technology-based redesign of courses. He/she assists teaching professionals in learning about, becoming proficient in, and applying instructional technology.

Example(s) of job classified under this code:

- Audio-visual aid specialist (teaching)
- Educational technologist
- Learning design specialist
- Teaching aid specialist

Occupation 23619 Education methods specialist n.e.c.

This group covers education methods specialist not elsewhere classified.

Example(s) of job classified under this code:

- Education institution inspector
- Education reviewer

Unit Group 2362 Special Education Teachers

Special education teachers teach physically or intellectually disabled children, young persons, or adults, or those with learning difficulties or other special needs. They promote the social, emotional, intellectual and physical development of their students.

Tasks include:

- assessing students' abilities and limitations with regard to intellectual, physical, social and emotional impairments, exceptional intellectual gifts, or other specific problems
- designing or modifying curricula and preparing and delivering programmes, lessons and activities adapted to students' abilities and needs
- giving instruction on an individual or group basis using special techniques or aids appropriate to students' needs
- employing special educational strategies and techniques during instruction to improve the development of sensory- and perceptual-motor skills, language, cognition, and memory

- establishing and enforcing rules for behaviour and policies and procedures to maintain order among students
- teaching academic subjects, and practical and self-help skills to students with hearing, sight and other impairments
- stimulating and developing students' confidence interests, abilities, manual skills and coordination
- conferring with other staff members to plan and schedule lessons for special needs students
- preparing and maintaining student data and other records and submitting reports
- administering various forms of assessment and evaluating progress of each student
- conferring with students, parents, head teacher and other relevant professionals involved in the students' care to develop individual educational plans designed to promote students' development

Occupation(s) in this Unit Group:

- 23621 Teacher of the visually impaired
- 23622 Early intervention teacher for infants and children
- 23629 Special education teacher n.e.c.

Occupation 23621 Teacher of the visually impaired

Teacher of the visually impaired specialises in teaching visually impaired students which includes reading and writing in braille. He/she designs or modifies curricula according to students' needs and abilities in addition to administering various forms of assessment to evaluate the progress of each student.

Example(s) of job classified under this code:

- Braille teacher

Example(s) of job not classified under this code:

- Audio-visual aid specialist (teaching), see 23612

Occupation 23622 Early intervention teacher for infants and children

Early intervention teacher for infants and children teaches academic, social, and life skills to infants and preschool children with special learning, emotional, or physical needs.

Example(s) of job classified under this code:

- Early intervention educator
- Learning support educator

Example(s) of job not classified under this code:

- Early intervention centre manager, see 13410

Occupation 23629 Special education teacher n.e.c.

This group covers special education teacher not elsewhere classified.

Example(s) of job classified under this code:

- Teacher of the intellectually disabled
- Teacher of the mentally disabled
- Teacher of the mute
- Teacher of the physically disabled

Example(s) of job not classified under this code:

- Teaching aid specialist, see 23612

Unit Group 2369 Teaching Professionals Not Elsewhere Classified

This unit group covers teaching professionals not elsewhere classified'.

Occupation(s) in this Unit Group:

- 23690 Teaching professional n.e.c.

Occupation 23690 Teaching professional n.e.c.

This group covers teaching professional not elsewhere classified.

Example(s) of job not classified under this code:

- Commercial school teacher (higher education), see 23109
- Vocational education teacher, see 23300
- Educational assessment specialist, see 23611
- Early intervention educator, see 23622
- Teacher aide, see 53120

SUB-MAJOR GROUP 24 BUSINESS AND ADMINISTRATION PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 241 FINANCE PROFESSIONALS
- 242 ADMINISTRATION PROFESSIONALS

- 243 MARKETING AND PUBLIC RELATIONS PROFESSIONALS

MINOR GROUP 241 FINANCE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2411 Accountants
- 2412 Financial and Investment Advisers
- 2413 Financial Analysts and Related Professionals
- 2414 Securities and Finance Dealers
- 2415 Securities and Finance Brokers
- 2416 Insurance Underwriters

Unit Group 2411 Accountants

Accountants plan, organise and administer accounting systems for individuals and establishments. They examine and analyse the accounting and financial records of individuals and establishments to ensure accuracy and compliance with established accounting standards and procedures.

Tasks include:

- advising on, planning and installing budgetary, accounts controlling and other accounting policies and systems
- preparing and certifying financial statements for presentation to management, shareholders and statutory or other bodies
- preparing tax returns, advising on taxation problems and contesting disputed claims before tax officials
- preparing or reporting on profit forecasts and budgets
- conducting financial investigations in such matters as suspected fraud, insolvency and bankruptcy
- auditing accounts and bookkeeping records
- conducting investigations and advising management on financial aspects of productivity, stockholdings, sales, new products, etc.
- devising and controlling a system to determine unit cost of products and services

Occupation(s) in this Unit Group:

- 24111 Accountant (excluding tax accountant)
- 24112 Auditor (accounting)
- 24113 Tax accountant

Occupation 24111 Accountant (excluding tax accountant)

Accountant (excluding tax accountant) plans, organises and administers accounting systems for individuals and establishments. He/she examines and analyses the accounting and financial records of individuals and establishments to ensure accuracy and compliance with established accounting standards and procedures.

Example(s) of job classified under this code:

- Casino accountant
- Chartered accountant
- Company accountant
- Cost accountant
- Public accountant

Example(s) of job not classified under this code:

- Auditor (accounting), see 24112
- Tax accountant, see 24113
- Assistant accountant, see 33131
- Bookkeeper, see 43111

Occupation 24112 Auditor (accounting)

Auditor (accounting) plans and conducts audit of accounts, bookkeeping of records and financial statements of private persons, enterprises, institutions and governmental organisations. He/she inspects the recording of transactions in daybooks and journals and verifies the transfer of journal entries to ledgers; inspects and verifies negotiable securities and notes receivable and payable. He/she also recommends improvements in accounting procedures or other desirable action.

Example(s) of job classified under this code:

- Audit senior
- External auditor
- Internal auditor

Example(s) of job not classified under this code:

- Casino accountant, see 24111
- Bookkeeper, see 43111

Occupation 24113 Tax accountant

Tax accountant prepares tax returns, advises on taxation problems and contests disputed claims before tax officials.

Example(s) of job classified under this code:

- Tax partner
- Tax senior

Example(s) of job not classified under this code:

- Accountant (excluding tax accountant), see 24111

Unit Group 2412 Financial and Investment Advisers

Financial and investment advisers develop financial plans for individuals and organisations, and invest and manage funds on their behalf.

Tasks include:

- building and maintaining a client base
- interviewing clients to determine financial status and objectives, risk tolerance and other information needed to develop financial plans and investment strategies
- setting financial objectives, and developing and implementing strategies for achieving the financial objectives
- arranging to buy and sell stocks and bonds for clients
- monitoring investment performance, and reviewing and revising investment plans based on modified needs and changes in markets
- providing consultancy services to individuals and organisations to advise them on better financial and investments management

Occupation(s) in this Unit Group:

- 24121 Financial/Investment adviser
- 24122 Business valuer

Occupation 24121 Financial/Investment adviser

Financial/Investment adviser develops financial plans for individuals and organisations, and invests and manages funds on their behalf.

Example(s) of job classified under this code:

- Intellectual property financial advisor
- Relationship manager (financial)

Example(s) of job not classified under this code:

- Bank manager (branch), see 13461
- Credit analyst, see 24131
- Fund/Portfolio manager, see 24133
- Business consultant, see 24212
- Financial planner, see 33211
- Insurance sales agent, see 33211

Occupation 24122 Business valuer

Business valuer provides valuation assessments of business entities, stock and other securities and intangible assets, in order to assist his/her clients in strategic decision-making procedures such as mergers and acquisitions, litigation cases, bankruptcy, taxation compliance and general restructuring of the companies.

Example(s) of job classified under this code:

- Business appraiser
- Business valuation consultant

Unit Group 2413 Financial Analysts and Related Professionals

Financial analysts and related professionals conduct quantitative analyses of information affecting investment programmes of public or private institutions.

Tasks include:

- analysing financial or trading information to produce forecasts of business, industry, and economic conditions for use in making investment decisions
- maintaining knowledge and staying abreast of developments in the fields of industrial technology, business, finance, and economic theory
- interpreting data affecting investment programmes, such as price, yield, stability, future trends in investment risks, and economic influences
- monitoring fundamental economic, industrial, and corporate developments through the analysis of information obtained from financial publications and services, investment banking firms, government agencies, trade publications, company sources, and personal interviews
- recommending investments and investment timing to companies, investment firm staff, or the investing public
- determining the prices at which securities or products should be syndicated and offered to the public
- optimising purchase timings and quantities for trading activities in the organisation

- preparing plans of action for investment based on financial analyses
- evaluating and comparing the relative quality of various securities or products in a given industry
- designing and reviewing product's pricing and/or structure
- presenting oral and written reports on general economic trends, individual corporations, and entire industries

Occupation(s) in this Unit Group:

- 24131 Financial analyst
- 24132 Compliance officer/Risk analyst (financial)
- 24133 Fund/Portfolio manager
- 24134 Treasury manager
- 24135 Financial product structurer
- 24136 Energy portfolio manager
- 24139 Financial analyst and related professional n.e.c.

Occupation 24131 Financial analyst

Financial analyst conducts economic research and elicits valuable analyses on financial matters such as profitability, liquidity, solvency, and asset management. He/she also provides recommendations on financial matters for decision-making processes.

Example(s) of job classified under this code:

- Credit analyst
- Equities analyst
- Investment research analyst

Example(s) of job not classified under this code:

- Bank manager (branch), see 13461
- Financial adviser, see 24121
- Business analyst, see 24212
- Financial services back office administrator, see 33160

Occupation 24132 Compliance officer/Risk analyst (financial)

Compliance officer/Risk analyst (financial) enforces or ensures compliance with laws and regulations governing financial and securities institutions as well as financial and real estate transactions. He/she may also examine, verify, or authenticate records.

Example(s) of job classified under this code:

- Compliance analyst (financial)
- Compliance officer (financial)
- Financial risk analyst

Example(s) of job not classified under this code:

- Business analyst, see 24212
- Product risk analyst, see 24222
- Financial services back office administrator, see 33160

Occupation 24133 Fund/Portfolio manager

Fund/Portfolio manager plans, directs, or coordinates investment strategy or operations for a large pool of liquid assets supplied by institutional investors or individual investors. He/she recommends investments and investment timing to companies, investment firm staff, or the investing public. He/she also prepares plans of action for investment based on financial analyses.

Example(s) of job classified under this code:

- Asset allocator
- Fund manager
- Portfolio manager

Example(s) of job not classified under this code:

- Investment adviser, see 24121

Occupation 24134 Treasury manager

Treasury manager determines and oversees the financial strategic policies of a company or organisation. He/she uses cash management techniques like account organisation, cash flow monitoring, liquidity planning and control. He/she is also involved in risk management, including currency and commodity risks and maintains close connection with banks and rating agencies.

Occupation 24135 Financial product structurer

Financial product structurer conceptualises, designs and develops new financial products. He/she also determines the pricing of the financial products and monitors the performance of the new financial products.

Occupation 24136 Energy portfolio manager

Energy portfolio manager analyses and recommends strategies for portfolio optimisation, such as purchase timings and quantities for trading activities in the organisation. He/she also evaluates trade entries and profit and loss reports to assess the business impact, manages market risks and may provide advice on the energy market trends and developments. He/she may also conduct market research to analyse and forecast trends in competitors' pricing strategies, and propose revisions to product pricing and structures.

Example(s) of job classified under this code:

- Energy portfolio analyst

Occupation 24139 Financial analyst and related professional n.e.c.

This group covers financial analyst and related professional not elsewhere classified.

Example(s) of job classified under this code:

- Cryptocurrency market analyst

Unit Group 2414 Securities and Finance Dealers

Securities and finance dealers buy and sell securities, stocks, bonds and other financial instruments, and deal on the foreign exchange, on spot, or on futures markets, on their own account or employers' account. They recommend transactions to senior management.

Tasks include:

- obtaining information about the financial circumstances of companies in which investments may be made
- analysing market trends for securities, bonds, stocks and other financial instruments, including foreign exchange
- advising on and participating in the negotiation of terms for, and organisation of, loans and placement of stocks and bonds in the financial market to raise capital for customers

Occupation(s) in this Unit Group:

- 24141 Securities/Finance dealer
- 24142 Foreign exchange dealer
- 24143 Financial derivatives dealer
- 24149 Securities/Finance dealer n.e.c.

Occupation 24141 Securities/Finance dealer

Securities/Finance dealer purchases and sells securities such as stocks, bonds and shares on his/her own account or employer's account. He/she monitors the performance of the securities traded, assessing their stability or speculative tendencies. He/she calculates the securities prices and places orders.

Example(s) of job classified under this code:

- Cryptocurrency trader

Example(s) of job not classified under this code:

- Insurance broker, see 33211
- Bonds clerk, see 43123
- Brokerage clerk, see 43123

Occupation 24142 Foreign exchange dealer

Foreign exchange dealer buys and sells foreign currencies on his/her own account or employer's account, in order to secure a profit on fluctuations in foreign exchange rates. He/she executes trading activities as per trading plans, monitors portfolio positions and market conditions. He/she undertakes technical analysis of economic information (market liquidity and volatility) to predict the future rates of currencies on the foreign exchange market.

Occupation 24143 Financial derivatives dealer

Financial derivatives dealer buys and sells financial derivatives on his/her own account or employer's account. He/she executes trading activities as per trading plans, monitors portfolio positions and market conditions.

Example(s) of job classified under this code:

- Financial futures dealer
- Futures trader

Example(s) of job not classified under this code:

- Financial derivatives broker, see 24153
- Trade broker, see 24361

Occupation 24149 Securities/Finance dealer n.e.c.

This group covers securities/finance dealer not elsewhere classified.

Example(s) of job not classified under this code:

- Commodities trading advisor, see 24154

Unit Group 2415 Securities and Finance Brokers

Securities and finance brokers buy and sell securities, stocks, bonds and other financial instruments, and deal on the foreign exchange, on spot, or on futures markets, on behalf of their clients on a commission basis. They recommend transactions to clients.

Tasks include:

- obtaining information about the financial circumstances of customers and companies in which investments may be made
- analysing market trends for securities, bonds, stocks and other financial instruments, including foreign exchange
- informing prospective customers about market conditions and prospects
- recording and transmitting buy and sell orders for securities, stocks, bonds or other financial instruments and for foreign exchange for future or immediate delivery
- monitoring the performance of their clients' securities

Occupation(s) in this Unit Group:

- 24151 Securities/Finance broker
- 24152 Foreign exchange broker
- 24153 Financial derivatives broker
- 24154 Commodities/Freight derivatives broker
- 24159 Securities/Finance broker n.e.c.

Occupation 24151 Securities/Finance broker

Securities/Finance broker buys and sells securities, stocks, bonds and other financial instruments on behalf of his/her clients on a commission basis. He/she executes trading activities as per clients' instructions. He/she also recommends transactions to clients.

Example(s) of job classified under this code:

- Cryptocurrency broker
- Investment broker
- Remisier

Example(s) of job not classified under this code:

- Financial futures broker, see 24153
- Securities clerk, see 43123

Occupation 24152 Foreign exchange broker

Foreign exchange broker buys and sells foreign currencies on behalf of his/her clients on a commission basis. He/she executes trading activities as per clients' instructions. He/she also undertakes technical analysis of economic information, such as market liquidity and volatility, to predict the future rates of currencies on the foreign exchange market.

Example(s) of job classified under this code:

- Money broker

Occupation 24153 Financial derivatives broker

Financial derivatives broker buys and sells financial derivatives on behalf of his/her clients on a commission basis. He/she executes trading activities as per clients' instructions.

Example(s) of job classified under this code:

- Financial futures broker

Example(s) of job not classified under this code:

- Financial derivatives dealer, see 24143
- Finance broker, see 24151

Occupation 24154 Commodities/Freight derivatives broker

Commodities/Freight derivatives broker buys and sells commodities and freight derivatives on behalf of his/her clients on a commission basis. He/she executes trading activities as per clients' instructions.

Example(s) of job classified under this code:

- Commodities broker (financial)
- Commodities trading advisor
- Commodity futures pool operator

Example(s) of job not classified under this code:

- Trade broker, see 24361

Occupation 24159 Securities/Finance broker n.e.c.

This group covers securities/finance broker not elsewhere classified.

Example(s) of job classified under this code:

- Stock jobber

Unit Group 2416 Insurance Underwriters

Insurance underwriters identify and measure the risks associated with an activity, determine whether this risk is insurable and what the terms of that acceptance are. They assess a risk according to the likelihood of a claim being made by weighing up a number of factors and asking for detailed information from prospective clients (policyholders).

Tasks include:

- receiving and assessing proposals and propositions for insurance from brokers and clients
- identifying and evaluating the risks associated with a proposal
- calculating premiums, providing quotations and, if acceptable to the client, issuing policies
- negotiating and placing reinsurance contracts
- advising on, negotiating terms for and placing insurance contracts for large or special types of projects, installations or risks

Occupation(s) in this Unit Group:

- 24160 Insurance underwriter

Occupation 24160 Insurance underwriter

Insurance underwriter identifies and measures the risks associated with an activity, determines whether this risk is insurable and what the terms of that acceptance are. He/she assesses a risk according to the likelihood of a claim being made by weighing up a number of factors and asking for detailed information from prospective clients (policyholders).

Example(s) of job classified under this code:

- Liability underwriter
- Underwriting service representative

Example(s) of job not classified under this code:

- Insurance actuary, see 21213
- Financial adviser (insurance), see 33211
- Insurance/Underwriting clerk, see 43122

MINOR GROUP 242 ADMINISTRATION PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2421 Management and Business Consultants
- 2422 Policy Administration Professionals
- 2423 Human Resource Professionals

- 2424 Training and Staff Development Professionals
- 2425 Intellectual Property Professionals
- 2429 Administration Professionals Not Elsewhere Classified

Unit Group 2421 Management and Business Consultants

Management and business consultants assist organisations to achieve greater efficiency and solve business problems. They study business structures, methods, systems and procedures.

Tasks include:

- assisting and encouraging the development of objectives, strategies and plans aimed at achieving customer satisfaction and the efficient use of organisations' resources
- analysing and evaluating current systems and structures
- discussing current systems with staff and observing systems at all levels of organisation
- directing clients towards more efficient organisation and developing solutions to business problems
- undertaking and reviewing work studies by analysing existing and proposed methods and procedures such as administrative and clerical procedures
- recording and analysing organisations' work flow charts, records, reports, manuals and job descriptions
- preparing and recommending proposals to revise methods and procedures, alter work flows, redefine job functions and resolve organisational problems
- assisting in implementing approved recommendations, issuing revised instructions and procedure manuals, and drafting other documentation
- reviewing operating procedures and advising of departures from procedures and standards

Occupation(s) in this Unit Group:

- 24211 Management consultant
- 24212 Business consultant
- 24213 Business/Financial project management professional
- 24214 Sustainability project development/management professional

Occupation 24211 Management consultant

Management consultant conducts organisational studies and evaluations, designs systems and procedures, conducts work simplification and measurement studies, and prepares operations and procedures manuals to assist management in operating more efficiently and effectively.

Example(s) of job not classified under this code:

- Business consultant, see 24212
- Future strategist, see 24221

Occupation 24212 Business consultant

Business consultant analyses the position, structure and processes of businesses and companies and offers services or advice to improve them. He/she researches and identifies business processes such as financial inefficiencies or employee management and devises strategical plans to overcome these difficulties.

Example(s) of job classified under this code:

- Business analyst
- Business process excellence engineer
- Industrial operations engineer
- Intellectual property management consultant
- Supply chain consultant

Example(s) of job not classified under this code:

- Operations research analyst, see 21212
- Intellectual property financial advisor, see 24121
- Financial analyst, see 24131
- Financial risk analyst, see 24132
- Management consultant, see 24211
- Policy analyst, see 24221
- Career consultant, see 24231
- IT business consultant, see 25112

Occupation 24213 Business/Financial project management professional

Business/Financial project management professional manages, oversees and implements business and financial projects. He/she ensures that customers' needs are met and that the project implementation plan is progressing in a timely and satisfactory manner, and prepares projects status reports for management.

Example(s) of job classified under this code:

- Client project implementation manager
- Design project manager

Occupation 24214 Sustainability project development/management professional

Sustainability project development/management professional assesses and develops environmental projects, such as carbon credit and renewable energy projects for businesses to reduce emissions. In the upstream phase of the project, he/she assesses the viability of the project by conducting pre-feasibility studies and analysis, structures and seeks project financing, and registers the project under certification standards. Where suitable methodologies do not exist under these standards, he/she develops the appropriate frameworks and methodologies to credibly assess and develop the project. When the project is ongoing, he/she oversees the development and Implementation of the project and prepares project documentation and reports. He/she also ensures that the projects adhere to the latest regulatory procedures and achieves certification standards throughout the project lifecycle. He/she may also negotiate contracts with project owners.

Example(s) of job classified under this code:

- Carbon project manager
- Carbon project originator/developer
- Carbon standard and methodology developer

Unit Group 2422 Policy Administration Professionals

Policy administration professionals develop and analyse policies guiding the design, implementation and modification of government and commercial operations and programmes.

Tasks include:

- liaising and consulting with programme administrators and other interested parties to identify policy needs
- reviewing existing policies and legislation to identify anomalies and out-of-date provisions
- researching social, economic and industrial trends, and client expectations of programmes and services provided
- formulating and analysing policy options, preparing briefing papers and recommendations for policy changes, and advising on preferred options
- assessing impacts, financial implications, interactions with other programmes and political and administrative feasibility of policies
- conducting threat and risk assessments and developing responses
- reviewing operations and programmes to ensure consistency with policies of the organisation

Occupation(s) in this Unit Group:

- 24221 Policy administration professional
- 24222 Risk analyst (non-financial)

Occupation 24221 Policy administration professional

Policy administration professional develops and analyses policies guiding the design, implementation and modification of government and commercial operations and programmes. He/she may also implement the policies and programmes to improve existing regulation and evaluate the effects of policies.

Example(s) of job classified under this code:

- Data protection officer
- Future strategist
- Policy analyst
- Scenario planning analyst

Example(s) of job not classified under this code:

- Management consultant, see 24211
- Business consultant, see 24212

Occupation 24222 Risk analyst (non-financial)

Risk analyst (non-financial) identifies potential risks and controls by performing risk assessments and research, analysing risk metrics/indicators, tracking industry trends and changes and reporting these findings to stakeholders. He/she ensures that risk management checks are performed with documentations duly completed and ensure internal controls are in place. He/she works closely with a broad range of cross-functional teams in areas such as legal, regulatory, policy, technology and product development teams to improve overall risk and compliance outcomes. He/she implements and supports the maintenance of the risk management framework and supports risk mitigation activities.

Example(s) of job classified under this code:

- Product risk analyst

Example(s) of job not classified under this code:

- Financial risk analyst, see 24132

Unit Group 2423 Human Resource Professionals

Human resource professionals provide professional business services related to human resource policies such as employee (senior level) recruitment or development, occupational analyses and compensation policies.

Tasks include:

- providing consultancy services on personnel functions relating to employee recruitment, placement, training, promotion, compensation, and employee-management relations or other areas of personnel policy
- studying and analysing jobs performed in an establishment by various means, including interviews with workers, supervisors and management, and writing detailed position, job or occupation descriptions from information obtained
- preparing occupational information or working on occupational classification systems
- advising and working on the foregoing and other aspects of job and occupation analyses in such fields as personnel administration, workforce research and planning, training, or occupational information and vocational guidance

Occupation(s) in this Unit Group:

- 24231 Human resource consultant (excluding executive search consultant)
- 24232 Executive search consultant
- 24233 Personnel/Human resource officer
- 24234 Industrial relations officer

Occupation 24231 Human resource consultant (excluding executive search consultant)

Human resource consultant (excluding executive search consultant) provides consultancy services on personnel functions relating to employee recruitment, placement, training, promotion, compensation, and employee-management relations or other areas of personnel policy. He/she studies and analyses jobs performed in an establishment by various means, including interviews with workers, supervisors and management, and writing detailed position, job or occupation descriptions from information obtained.

Example(s) of job classified under this code:

- Career consultant
- Compensation and benefits specialist
- Job analyst
- Occupational analyst
- Talent acquisition specialist

Example(s) of job not classified under this code:

- Human resource (HR) development officer, see 24233
- Business consultant, see 24212

Occupation 24232 Executive search consultant

Executive search consultant provides suitable candidates to employers according to the specific job profiles requested. He/she conducts tests and interviews with job seekers, shortlists potential candidates for employers and matches these candidates to appropriate jobs. He/she also maintains relationships with employers to offer his/her services on a more long-term basis.

Example(s) of job classified under this code:

- Recruitment consultant

Example(s) of job not classified under this code:

- Placement officer, see 24233
- Job placement officer, see 33330

Occupation 24233 Personnel/Human resource officer

Personnel/Human resource officer develops and implements strategies that help their employers select and retain appropriately qualified staff within that business sector. He/she recruits staff, prepares job advertisements, interviews and short-lists people, negotiates with employment agencies, and sets up working conditions. He/she also administers the payroll, reviews salaries and advises on remuneration benefits and employment law. He/she may arrange for training opportunities to enhance employees' performance.

Example(s) of job classified under this code:

- Human resource (HR) development officer
- Personnel executive
- Placement officer

Example(s) of job not classified under this code:

- Occupational analyst, see 24231
- Executive search consultant, see 24232
- Industrial relations officer, see 24234
- Training development professional, see 24240

Occupation 24234 Industrial relations officer

Industrial relations officer works with union leaders and members and company's human resource team and management to maintain and improve the welfare of workers. He/she resolves workplace disputes and assists in negotiating collective agreements with unions and management for the workers. He/she also plans and organises membership and social

activities. He/she represents workers who do not have the ability to defend their rights as employees.

Example(s) of job classified under this code:

- Labour conciliator
- Labour management relations conciliator

Example(s) of job not classified under this code:

- Compensation and benefits specialist, see 24231
- Human resource (HR) development officer, see 24233

Unit Group 2424 Training and Staff Development Professionals

Training and staff development professionals plan, develop, implement and evaluate training and development programmes to ensure management and staff acquire the skills and develop the competencies required by organisations to meet organisational objectives.

Tasks include:

- identifying training needs and requirements of individuals and organisations
- setting human resource development objectives and evaluating learning outcomes
- preparing and developing instructional training material and aids such as handbooks, visual aids, online tutorials, demonstration models and supporting training reference documentation
- designing, coordinating, scheduling and conducting training and development programmes that can be delivered in the form of individual and group instruction, and facilitating workshops, meetings, demonstrations and conferences
- liaising with external training providers to arrange delivery of specific training and development programmes
- promoting internal and external training and development, and evaluating these promotional activities
- monitoring and performing ongoing evaluation and assessment of internal and external training quality and effectiveness, and reviewing and modifying training objectives, methods and course deliverables
- gathering, investigating and researching background materials to gain an understanding of various subject matters and systems

Occupation(s) in this Unit Group:

- 24240 Training/Staff development professional

Occupation 24240 Training/Staff development professional

Training/Staff development professional plans, develops, implements and evaluates training and development programmes to ensure management and staff acquire the skills and develop the competencies required by organisations to meet organisational objectives. He/she prepares and develops instructional training material and aids such as handbooks, visual aids, online tutorials, demonstration models, and training reference documentation. He/she may analyse organisational training needs or evaluate training effectiveness.

Example(s) of job classified under this code:

- Staff training organiser
- Training executive

Example(s) of job not classified under this code:

- Human resource (HR) development officer, see 24233

Unit Group 2425 Intellectual Property Professionals

Intellectual property professionals provide services on the intellectual property assets such as patents, copyrights, trade marks and trade secrets.

Tasks include:

- assessing and determining the granting of patents and trade marks
- reviewing patent applications and examining inventions from a technical standpoint
- reviewing and processing trade mark applications
- advising on the registrability of intellectual property and the drafting of specifications for submission of an intellectual property application
- providing advice on the protection and commercialisation of intellectual property

Occupation(s) in this Unit Group:

- 24251 Intellectual property agent
- 24252 Intellectual property examiner

Occupation 24251 Intellectual property agent

Intellectual property agent provides professional advice on the registrability of intellectual property (IP) and the drafting of specifications for submission of an IP application before the IP Office, as well as assistance in the registration and renewal of IP. He/she also acts principally for his/her clients in the prosecution of infringements and provides advice on the protection and commercialisation of IP.

Example(s) of job classified under this code:

- Patent agent

Example(s) of job not classified under this code:

- Intellectual property engineer, see 21495
- Intellectual property attorney/counsel/lawyer (in-house), see 26112

Occupation 24252 Intellectual property examiner

Intellectual property examiner assesses and determines the granting of patents and trade marks. He/she reviews patent applications and examines inventions from a technical standpoint and ensures that the invention is novel. He/she reviews and processes trade mark applications under the Trade Marks Act and Madrid Protocol.

Unit Group 2429 Administration Professionals Not Elsewhere Classified

This unit group covers administration professionals not elsewhere classified.

Occupation(s) in this Unit Group:

- 24291 Research officer (non-statistical)
- 24299 Other administration professional n.e.c.

Occupation 24291 Research officer (non-statistical)

Research officer (non-statistical) manages research projects that aim to investigate and provide reports on business issues. He/she performs research by gathering information through interviews, focus groups and questionnaires. He/she also organises and analyses the gathered information using computer software programmes, and explores solutions to address problems and needs.

Occupation 24299 Other administration professional n.e.c.

This group covers other administration professional not elsewhere classified.

Example(s) of job not classified under this code:

- Intellectual property engineer, see 21495

MINOR GROUP 243 MARKETING AND PUBLIC RELATIONS PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2431 Advertising and Marketing Professionals
- 2432 Public Relations Professionals

- 2433 Specialised Goods Sales Professionals
- 2435 Commodities and Freight Traders
- 2436 Commodities and Ship Brokers

Unit Group 2431 Advertising and Marketing Professionals

Advertising and marketing professionals develop and coordinate advertising strategies and campaigns across all engagement platforms such as web, social media, mobile, direct mail and point of sale, determine the market for new goods and services, and identify and develop market opportunities for new and existing goods and services.

Tasks include:

- planning, developing and organising advertising policies and campaigns to support sales objectives
- advising managers and clients on strategies and campaigns to reach target markets, creating consumer awareness and effectively promoting the attributes of goods and services
- writing advertising copy and media scripts, and arranging television and film production and media placement
- analysing data regarding consumer patterns and preferences
- interpreting and predicting current and future consumer trends
- researching potential demand and market characteristics for new goods and services and collecting and analysing data and other statistical information
- supporting business growth and development through the preparation and execution of marketing objectives, policies and programmes
- commissioning and undertaking market research to identify market opportunities for new and existing goods and services
- advising on all elements of marketing such as product mix, pricing, advertising and sales promotion, selling, and distribution channels

Occupation(s) in this Unit Group:

- 24311 Creative advertising professional
- 24312 Market research professional
- 24313 Marketing strategy/planning professional
- 24314 Digital marketing professional
- 24315 Revenue specialist

Occupation 24311 Creative advertising professional

Creative advertising professional oversees the creation process of advertisements and commercials. He/she provides advice to companies and organisations about the development of their advertising strategies and on advertising-related topics covering a more general strategic approach.

Example(s) of job classified under this code:

- Advertising strategist
- Creative director (advertising)

Occupation 24312 Market research professional

Market research professional collects product information gathered in market research, in terms of prices and competition, and studies it to draw conclusions. He/she identifies the potential customers of a product, the target group and the way they can be reached. He/she also analyses cross selling and interdependencies between different products and their placement, and prepares information helpful for the development of marketing strategies.

Occupation 24313 Marketing strategy/planning professional

Marketing strategy/planning professional manages, plans and develops strategy based on information collected from market research. He/she advises managers and clients on strategies and campaigns to reach target markets, create consumer awareness and hence effectively promote the attributes of goods and services.

Occupation 24314 Digital marketing professional

Digital marketing professional leads and monitors the execution of all digital marketing activities, manages the online review sites and responds accordingly. He/she creates and manages online and digital platforms, measures and reports the performance of all digital marketing activities against goals, as well as provides monthly reports on these trends. He/she directs and supports the needs of the markets to ensure the maximisation of all marketing channels.

Example(s) of job classified under this code:

- Digital marketing manager
- Digital media marketing executive
- E-commerce marketing manager
- Social media marketing analyst

Occupation 24315 Revenue specialist

Revenue specialist maximises revenue generation for company by analysing trends and competition. He/she analyses reports, market segment performance and demand and tracks inventory for the optimal mix of business. He/she optimises the financial potential of the company and assists management in strategic decisions. He/she also conducts sales strategy analysis and refinements to increase market share or revenue.

Example(s) of job classified under this code:

- Revenue analyst

Unit Group 2432 Public Relations Professionals

Public relations professionals plan, develop and evaluate information and communication strategies for clients that create an understanding and a favourable view of businesses and other organisations, their goods and services, and their role in the community.

Tasks include:

- planning and organising publicity campaigns and communication strategies
- advising on the public relations implications of their policies, programmes and practices preparing and controlling the issue of news and press releases
- undertaking and commissioning public opinion research, analysing the findings and planning public relations and promotional campaigns
- organising special events, seminars, entertainment, competitions and social functions to promote goodwill and favourable publicity
- discussing issues of business strategy, products, services and target client base with management to identify public relations requirements
- representing organisations and arranging interviews with publicity media
- providing consultancy services on planning and organising publicity campaigns and communication strategies
- writing, editing and arranging for the effective distribution of press releases, newsletters and other public relations material
- addressing individuals, clients and other target groups through meetings, presentations, the media and other events to enhance the public image of an organisation

Occupation(s) in this Unit Group:

- 24320 Public relations/Corporate communications professional

Occupation 24320 Public relations/Corporate communications professional

Public relations/Corporate communications professional plans, develops and evaluates information and communication strategies for clients that create an understanding and a favourable view of businesses and other organisations, their goods and services, and their role in the community. He/she organises publicity campaigns, special events, seminars, competitions and social functions to promote goodwill and favourable public opinion. He/she also writes, edits and arranges for the effective distribution of press releases, newsletters and other public relations material, and addresses individuals, clients and other target groups to enhance the public image of an organisation.

Example(s) of job classified under this code:

- Chief press secretary
- Fundraising consultant
- Press liaison officer
- Public information officer
- Publicity agent

Unit Group 2433 Specialised Goods Sales Professionals

Specialised goods sales professionals represent companies in selling a range of industrial, medical, pharmaceutical, technical and other specialised goods and services to industrial, business, professional and other establishments and provide specific information as required based on their specialised skills and/or knowledge of the goods and services in a particular field or subject matter.

Tasks include:

- compiling lists of prospective client businesses by using directories and other sources
- acquiring and updating knowledge of employer's and competitors' goods and services and of market conditions
- visiting regular and prospective client businesses to establish and act on selling opportunities
- assessing clients' needs and resources and recommending appropriate goods or services
- providing input to product design where goods or services must be tailored to suit clients' needs
- developing reports and proposals as part of sales presentations to demonstrate benefits from the use of goods or services
- estimating costs of installing and maintaining the equipment or service
- monitoring customers' changing needs and competitors' activity, and reporting these developments to sales management
- quoting and negotiating prices and credit terms, and preparing and administering contracts
- arranging delivery of goods, installation of equipment and the provision of services

- reporting to sales management on sales made and the marketability of goods and services
- reporting customers' reactions and requirements to manufacturers
- consulting with clients after sale to ensure a satisfactory resolution of any problems, and provide ongoing support
- soliciting orders and selling specialised goods to retail, industrial, wholesale and other establishments
- selling specialised equipment, supplies and related services to business establishments or individuals
- providing prospective customers with information about the characteristics and functions of the products and equipment for sale, and demonstrating their uses or qualities

Occupation(s) in this Unit Group:

- 24331 Technical sales professional
- 24332 Medical/Pharmaceutical products sales professional
- 24333 ICT sales and services professional
- 24334 Sales professional (institutional sales of financial products)
- 24339 Specialised goods sales professional n.e.c.

Occupation 24331 Technical sales professional

Technical sales professional promotes and sells products and services, such as chemical, novel food ingredients (i.e. alternative proteins, cultivated proteins, nutraceuticals), mechanical, electrical and electronic supplies, using specialised knowledge of the technology of the composition, utilisation and maintenance of the goods or equipment sold. He/she calls on architects, engineers and other potential users to explain the merits of the firm's product and its application to the user's special requirements.

Example(s) of job classified under this code:

- Engineering salesman
- Novel foods technical services manager
- Technical sales engineer
- Technical salesman

Example(s) of job not classified under this code:

- Fund management business development executive, see 33221

Occupation 24332 Medical/Pharmaceutical products sales professional

Medical/Pharmaceutical products sales professional promotes and sells medical devices, equipment and pharmaceutical products to healthcare professionals. He/she provides product information and demonstrates features of products to healthcare professionals.

Example(s) of job classified under this code:

- Medical and pharmaceutical products sales representative
- Medical sales representative
- Pharmaceutical representative
- Pharmaceutical sales representative

Occupation 24333 ICT sales and services professional

ICT sales and services professional promotes and sells hardware, software, telecommunications or Information and Communication Technology (ICT) services. He/she provides product information and demonstrates features of the ICT products to clients. He/she identifies opportunities for sales by sourcing for customers and manages the delivery of products to customers.

Example(s) of job classified under this code:

- Information and communications technology (ICT) sales representative

Occupation 24334 Sales professional (institutional sales of financial products)

Sales professional (institutional sales of financial products) specialises in the institutional sale of banking and financial products. He/she studies the market and modifies the existing products or creates new products to suit clients needs. He/she also monitors and evaluates the performance indicators of these products and suggests improvements.

Example(s) of job classified under this code:

- Corporate finance sales and distribution executive
- Financial products institutional sales representative
- Treasury sales executive

Occupation 24339 Specialised goods sales professional n.e.c.

This group covers specialised goods sales professional not elsewhere classified.

Example(s) of job classified under this code:

- Commercial traveller

- Manufacturer's agent
- Manufacturer's sales representative
- Sports products sales representative

Unit Group 2435 Commodities and Freight Traders

Commodities and freight traders buy and sell commodities and shipping services, on their own account or employers' account. They receive and implement purchasing and selling instructions and negotiate the terms of sale and delivery of commodities. They research about market conditions of specific commodities, their price trends and demand in order to inform their employers. They make bid offers and calculate the cost of transactions.

Tasks include:

- establishing contact between buyers and sellers of commodities
- discussing buying or selling requirements of clients and giving advice accordingly
- buying and selling cargo space on ships
- negotiating purchase or sale of commodities and commodity futures
- finding cargo and/or storage space for commodities and negotiating freight, shipping and storage charges
- monitoring and analysing market trends and other factors affecting the supply and demand for commodities and shipping services

Notes:

Those who trade and deal mainly in financial derivatives should be classified in Unit Groups 2414 'Securities and Finance Dealers' and 2415 'Securities and Finance Brokers'.

Occupation(s) in this Unit Group:

- 24351 Commodities trader (excluding oil, bunker and environmental commodities)
- 24352 Oil/Bunker trader
- 24353 Ship charterer
- 24354 Environmental commodities trader

Occupation 24351 Commodities trader (excluding oil, bunker and environmental commodities)

Commodities trader (excluding oil, bunker and environmental commodities) buys and sells commodities other than oil, bunker and environmental commodities, on his/her own account or employer's account. He/she sources, schedules, moves and optimises commodities through supply chains and distribution systems. He/she plans and executes purchase timings

and delivery modes, while balancing organisational's operational requirements and market movements.

Example(s) of job not classified under this code:

- Oil/Bunker trader, see 24352
- Carbon trader, see 24354

Occupation 24352 Oil/Bunker trader

Oil/Bunker trader buys and sells oil and bunker, on his/her own account or employer's account. He/she sources, schedules, moves and optimises oil and bunker through supply chains and distribution systems. He/she plans and executes purchase timings and delivery modes, while balancing organisational's operational requirements and market movements.

Occupation 24353 Ship charterer

Ship charterer supports the organisation's chartering operations and arranges the chartering of ships to deliver cargoes. He/she supports client account management, addresses issues arising in the pre-fixture and post-fixture process and gathers data for potential business opportunities.

Occupation 24354 Environmental commodities trader

Environmental commodities trader buys and sells environmental commodities such as emission allowances, carbon offsets, Renewable Energy Certificates (REC), biofuels and biofeedstocks, on his/her own account or employer's account. He/she sources, schedules, moves and optimises environmental commodities through supply chains and distribution systems. He/she plans and executes purchase timings and delivery modes, while balancing organisational's operational requirements and market movements.

Example(s) of job classified under this code:

- Biofuel trader
- Carbon trader

Unit Group 2436 Commodities and Ship Brokers

Commodities and ship brokers buy and sell commodities and shipping services, usually in bulk, on behalf of their clients on a commission basis.

Tasks include:

- establishing contact between buyers and sellers of commodities
- discussing buying or selling requirements of clients and giving advice accordingly

- buying and selling cargo space on ships
- negotiating purchase or sale of commodities and commodity futures
- finding cargo and/or storage space for commodities and negotiating freight, shipping and storage charges
- monitoring and analysing market trends and other factors affecting the supply and demand for commodities and shipping services

Notes:

Those who trade and deal mainly in financial derivatives should be classified in Unit Groups 2414 'Securities and Finance Dealers' and 2415 'Securities and Finance Brokers'.

Occupation(s) in this Unit Group:

- 24361 Trade broker
- 24362 Ship broker

Occupation 24361 Trade broker

Trade broker buys and sells commodities on behalf of his/her clients on a commission basis. He/she establishes contact between buyers and sellers of commodities, discusses the buying or selling requirements of clients and gives advice accordingly, negotiates the purchase or sale of commodities and commodity futures and monitors and analyses market trends and other factors affecting the supply and demand for commodities and shipping services.

Example(s) of job classified under this code:

- Sales and purchase broker

Example(s) of job not classified under this code:

- Financial derivatives dealer, see 24143
- Commodities broker (financial), see 24154
- Brokerage clerk, see 43123

Occupation 24362 Ship broker

Ship broker acts as an intermediary between buyers and sellers of ships, cargo space on ships and chartering of ships. He/she informs clients on the shipping market mechanisms and movements, reports on vessel and cargo space prices and sales and negotiates the cost of the vessels, cargo space and chartering on behalf of the buyers and sellers. He/she also advises on the logistical requirements for the transfer of the vessel or commodity cargo from sellers to buyers.

Example(s) of job classified under this code:

- Chartering broker (maritime services)

- Sea transport chartering broker

SUB-MAJOR GROUP 25 INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 251 SOFTWARE AND APPLICATIONS DEVELOPERS AND ANALYSTS
- 252 DATABASE, NETWORK, INFRASTRUCTURE AND CYBERSECURITY PROFESSIONALS

MINOR GROUP 251 SOFTWARE AND APPLICATIONS DEVELOPERS AND ANALYSTS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2511 Systems Analysts
- 2512 Software, Web, Multimedia and Games Developers and Designers
- 2514 Applications and Systems Programmers
- 2515 Information and Communications Technology (ICT) Testing and Quality Assurance Professionals
- 2519 Software and Applications Developers and Analysts Not Elsewhere Classified

Unit Group 2511 Systems Analysts

Systems analysts conduct research, analyse and evaluate client information technology requirements, procedures or problems, and develop and implement proposals, recommendations, and plans to improve current or future information systems.

Tasks include:

- consulting with users to formulate and document requirements and with management to ensure agreement on systems principles
- identifying and analysing business processes, procedures and work practices
- identifying and evaluating inefficiencies and recommending optimal business practices, and system functionality and behaviour
- taking responsibility for deploying functional solutions, such as creating, adopting and implementing system test plans
- developing functional specifications for use by systems developers
- expanding or modifying systems to improve work flow or serve new purposes
- coordinating and linking the computer systems within an organisation to increase compatibility

Occupation(s) in this Unit Group:

- 25111 Systems designer/analyst
- 25112 ICT business process consultant/business analyst
- 25113 Enterprise/Solution/Software architect
- 25114 ICT product manager

Occupation 25111 Systems designer/analyst

Systems designer/analyst assists with modifying, enhancing or adapting existing or proposed systems within an organisation. He/she examines and documents technical requirements for new solutions to be created and analyses user needs. He/she designs new IT solutions, produces outline designs and estimates costs of new systems as well as participates in the integration of new features or improvements.

Example(s) of job classified under this code:

- Information technology project leader (systems design)
- Systems analyst
- Systems designer (computer)

Example(s) of job not classified under this code:

- Operations research analyst, see 21212
- Systems programmer, see 25141

Occupation 25112 ICT business process consultant/business analyst

ICT business process consultant/business analyst analyses and designs an organisation's processes and systems and assesses the business model and its integration with technology. He/she identifies the changes needed for the ICT systems, assesses the impact of the change, captures and documents the requirements and then ensures that these requirements are delivered whilst supporting the business through the implementation process. He/she acts as a liaison between users and technical staff to address IT systems' questions and issues.

Example(s) of job classified under this code:

- Blockchain researcher
- Cryptography researcher
- Cryptography solutions consultant
- IT business consultant
- IT business intelligence consultant

Example(s) of job not classified under this code:

- Cryptanalyst, see 21211

- Operations research analyst, see 21212
- Business analyst, see 24212

Occupation 25113 Enterprise/Solution/Software architect

Enterprise/Solution/Software architect plans, designs and develops information technology technical systems solutions based on business needs. He/she identifies architecture and systems integration problems, future technological goals and provides expert advice on solutions. He/she develops information management standards and practices.

Example(s) of job classified under this code:

- ICT system integration consultant

Example(s) of job not classified under this code:

- ICT product analyst, see 21212

Occupation 25114 ICT product manager

ICT product manager manages the entire product line life cycle, from strategic planning to tactical activities. He/she supports product positioning and customer demand, and guides product development from conception to launch. He/she evaluates product functionalities and performance and proposes enhancements to products based on market feedback. He/she researches and analyses potential partner relationships for the product and generates ideas to grow market share, improve customer experience and drive growth.

Example(s) of job classified under this code:

- ICT product officer

Example(s) of job not classified under this code:

- ICT product analyst, see 21212

Unit Group 2512 Software, Web, Multimedia and Games Developers and Designers

Software, web, multimedia and games developers and designers research, analyse and evaluate requirements for existing or new software, web, multimedia and games applications. They also design, develop, test and maintain software, web, multimedia and games solutions to meet the requirements. They may develop user experiences and interfaces for a variety of communications platform (e.g. visual, audio, augmented reality/virtual reality).

Tasks include:

- researching, analysing and evaluating requirements for software, web, multimedia and games applications
- designing and developing computer software, web, multimedia and games systems

- consulting with engineering staff to evaluate interface between hardware and software
- developing and directing software testing and validation procedures
- modifying existing software to correct errors, to adapt it to new hardware or to upgrade interfaces and improve performance
- directing software programming and development of documentation
- assessing, developing, upgrading and documenting maintenance procedures for software, web, multimedia and games applications
- assisting in analysing, specifying and developing Internet strategies, web-based methodologies and development plans
- consulting with customers concerning maintenance of software, web, multimedia and games systems
- developing and designing user experiences and interfaces
- working directly with customers to design end-to-end experiences using participatory and iterative design techniques (including observational studies, customer interviews, task analysis, persona creation, storyboarding, scenario building, user flows, use cases, usability testing), as well as other forms of qualitative and quantitative research to uncover insights, learn about user behaviour and verify design concepts
- communicating design concepts through storytelling and rapid prototyping methods, ranging from paper sketching to digital prototyping (e.g. diagrams, illustrations, layouts)

Occupation(s) in this Unit Group:

- 25121 Software developer
- 25122 Web/Mobile applications developer
- 25123 Multimedia-games developer/designer
- 25124 Interaction designer
- 25125 DevOps engineer

Occupation 25121 Software developer

Software developer researches, designs and develops computer and network software or specialised utility programmes. He/she analyses user needs and develops intuitive and responsive software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. He/she also updates software, enhances existing software capabilities, and develops and directs software testing and validation procedures and evaluates and addresses security vulnerabilities through security tools. He/she may work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. He/she may also gather user feedback to propose improvements to the product's interface, support usability testing or execute specifications and features for the next iteration of the product based on user feedback.

Example(s) of job classified under this code:

- Blockchain developer
- Computer software engineer
- Cryptography engineer
- Full stack developer

Example(s) of job not classified under this code:

- Computer engineer, see 21522
- Applications/Systems programmer, see 25141

Occupation 25122 Web/Mobile applications developer

Web/Mobile applications developer researches, analyses and evaluates requirements for existing or new web and mobile applications. He/she designs, develops, tests and maintains web and mobile solutions to meet the requirements. He/she also evaluates programming codes to ensure that they are properly structured, meet industry standards and are compatible with browsers and devices. He/she may also develop website infrastructure and integrate websites with other computer applications.

Example(s) of job not classified under this code:

- Applications programmer, see 25141

Occupation 25123 Multimedia-games developer/designer

Multimedia-games developer/designer writes game specifications and designs and develops the layout, logic, concept and game-play. He/she may also write code, create programmes, implement technical standards in gameplay, graphics, sound and functionality. He/she may also develop and create environments in virtual reality or augmented reality for games and non-games industries.

Example(s) of job classified under this code:

- Augmented reality designer
- Computer games designer
- Computer games developer
- Games sound designer
- Virtual reality developer

Example(s) of job not classified under this code:

- Computer games artist, see 21662
- Computer graphics (CG) modeller, see 21662

- Multimedia designer, see 21662
- Applications/Systems programmer, see 25141

Occupation 25124 Interaction designer

Interaction designer conceptualises, develops and refines interface and usability of products, systems or services, through various iterative processes. He/she takes into consideration the practical, experiential, affective, meaningful and valuable aspects of human and computer interaction and product ownership, as well as the person's perceptions of system aspects such as utility, ease of use and efficiency, and user experience dynamics. He/she analyses users' behaviours, attitudes, and emotions about the usage of a particular product, system or service.

Example(s) of job classified under this code:

- User experience designer
- User interface designer

Occupation 25125 DevOps engineer

DevOps engineer is responsible for the design and implementation of applications' build, release, deployment and configuration activities, and is a team member for the agile development process. He/she develops Proof-of-Concepts to evaluate feasibility of the software application and tools for the development team, and develops suitable application and tools. He/she determines specifications and features for the next iteration of software application development based on user needs and feedback, continuously integrates code changes, and conducts various automated testing to ensure the software application remains functional. He/she also performs continuous deployment through automating the deployment process, and manages the releases of software application versions and features.

Unit Group 2514 Applications and Systems Programmers

Applications and systems programmers write and maintain programmable code outlined in technical instructions and specifications for software applications and operating systems.

Tasks include:

- writing and maintaining programme code outlined in instructions and specifications in accordance with quality accredited standards
- revising, repairing or expanding existing programmes to increase operating efficiency or adapt to new requirements
- conducting trial runs of programmes and software applications to confirm that they will produce the desired information
- compiling and writing documentation of programme development

- identifying and communicating technical problems, processes and solutions

Occupation(s) in this Unit Group:

- 25141 Applications/Systems programmer
- 25142 Artificial intelligence applied researcher
- 25143 Artificial intelligence/Machine learning engineer

Occupation 25141 Applications/Systems programmer

Applications/Systems programmer writes and maintains programmable code outlined in technical instructions and specifications for software applications and operating systems.

Example(s) of job classified under this code:

- Analyst programmer
- Computer programmer
- Multimedia programmer (excluding games)
- Technical programmer

Example(s) of job not classified under this code:

- Multimedia designer, see 21662
- Systems designer (computer), see 25111
- Software developer, see 25121
- Mobile applications developer, see 25122
- Web developer, see 25122
- Computer games developer, see 25123
- Games developer, see 25123

Occupation 25142 Artificial intelligence applied researcher

Artificial intelligence (AI) applied researcher designs and conducts AI research and development, manages data collection and preparation and synthesises insights to identify potential use cases of AI for the business. He/she presents AI research and development outcomes to senior management and/or business stakeholders at public forums. He/she determines the patentability of AI solutions and assists in the process for obtaining intellectual property rights for AI solutions. He/she may also tune or invent new AI models.

Example(s) of job not classified under this code:

- Data scientist, see 21222

Occupation 25143 Artificial intelligence/Machine learning engineer

Artificial intelligence (AI)/Machine learning (ML) engineer supports the production of scalable and optimised AI/ML models. He/she focuses on building algorithms for the extraction, transformation and loading of large volumes of real-time, unstructured data in order to deploy AI/ML solutions from theoretical data science models. He/she runs experiments to test the performance of deployed models, and identifies and resolves bugs that arise in the process.

Unit Group 2515 Information and Communications Technology (ICT) Testing and Quality Assurance Professionals

Information and communications technology (ICT) testing and quality assurance professionals specialise in quality assurance including software testing.

Tasks include:

- developing and documenting software testing plans
- installing software and hardware and configuring operating system software in preparation for testing
- verifying that programmes function according to user requirements and established guidelines
- executing, analysing and documenting results of software application tests and information and telecommunication systems tests
- developing and implementing software and information system testing policies, procedures and scripts

Occupation(s) in this Unit Group:

- 25151 ICT quality assurance specialist
- 25152 ICT auditor

Occupation 25151 ICT quality assurance specialist

ICT quality assurance specialist develops and documents ICT hardware and software testing plans, installs software and hardware and configures operating system software in preparation for testing, and verifies that programmes function according to user requirements and established guidelines. He/she also executes, analyses and documents results of software application tests and information and telecommunication systems tests, and develops and implements software and information system testing policies, procedures and scripts.

Example(s) of job classified under this code:

- Information technology quality assurance specialist
- Information technology testing specialist

Example(s) of job not classified under this code:

- ICT security specialist, see 25241

Occupation 25152 ICT auditor

ICT auditor performs audits of information systems, platforms, and operating procedures in accordance with established standards for efficiency, accuracy and security. He/she evaluates ICT infrastructure in terms of risks to the organisation and establishes controls to mitigate loss. He/she determines and recommends improvements in the current risk management controls and implementation of system changes or upgrades.

Example(s) of job classified under this code:

- Computer systems auditor
- Information technology (IT) auditor

Example(s) of job not classified under this code:

- ICT security consultant, see 25241

Unit Group 2519 Software and Applications Developers and Analysts Not Elsewhere Classified

This unit group covers software and applications developers and analysts not elsewhere classified.

Occupation(s) in this Unit Group:

- 25190 Software and applications developer/analyst n.e.c.

Occupation 25190 Software and applications developer/analyst n.e.c.

This group covers software and applications developer/analyst not elsewhere classified.

Example(s) of job not classified under this code:

- Artificial intelligence (AI) engineer, see 25143

MINOR GROUP 252 DATABASE, NETWORK, INFRASTRUCTURE AND CYBERSECURITY PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2521 Database Designers, Administrators and Data Engineers
- 2522 Network, Servers, Applications and Computer Systems Administrators
- 2523 Computer Network, Infrastructure and Platform Professionals
- 2524 Cybersecurity Professionals

- 2529 Database, Network, Infrastructure and Cybersecurity Professionals Not Elsewhere Classified

Unit Group 2521 Database Designers, Administrators and Data Engineers

Database designers, administrators and data engineers design, develop, control, maintain and support the optimal performance and security of data models, data flow channels, databases, data warehouse systems and infrastructure.

Tasks include:

- designing and developing database architecture, data structures, models, channels, tables, dictionaries and naming conventions for information systems projects
- designing, constructing, modifying, integrating, implementing and testing database and data warehouse management systems
- conducting research and providing advice on the selection, application and implementation of database and data warehouse management tools
- developing and implementing data administration policy, documentation, standards and models
- developing policies and procedures for database and data warehouse access and usage and for the backup and recovery of data
- performing the operational establishment and preventive maintenance of backups, recovery procedures, and enforcing security and integrity controls

Occupation(s) in this Unit Group:

- 25211 Data/Database administrator
- 25212 Data/Database architect
- 25213 Data engineer

Occupation 25211 Data/Database administrator

Data/Database administrator manages, maintains and implements computer databases. He/she coordinates changes to computer databases and identifies, investigates, and resolves database performance issues, database capacity, and database scalability. He/she may plan, coordinate, and implement security measures to safeguard computer databases.

Example(s) of job not classified under this code:

- Computer systems administrator, see 25220
- Network administrator, see 25220
- Website administrator, see 35140

Occupation 25212 Data/Database architect

Data/Database architect plans and designs enterprise databases, data warehouse systems and multidimensional networks. He/she sets standards for database operations, programming, query processes, and security. He/she creates and optimises data models for warehouse infrastructure and workflow and integrates new systems with existing warehouse structure.

Example(s) of job classified under this code:

- Database design analyst

Occupation 25213 Data engineer

Data engineer supports the design, implementation and maintenance of data flow channels and data processing systems that support the collection, storage and real-time processing, and analysis of information in a scalable, repeatable and secure manner. He/she focuses on defining optimal solutions to data collection, processing and warehousing and designs, codes and tests data systems to implement improvements into the internal infrastructure. He/she may also extract valuable insights from datasets to derive actionable insights and recommendations that support business requirements.

Unit Group 2522 Network, Servers, Applications and Computer Systems Administrators

Network, servers, applications and computer systems administrators develop, control, maintain and support the optimal performance and security of information technology systems.

Tasks include:

- maintaining and administering computer networks and related computing environments including systems software, applications software and all configurations
- recommending changes to improve systems and network configurations, and determining hardware or software requirements related to such changes
- diagnosing network and system problems
- performing data backups and disaster recovery operations
- operating master consoles to monitor the performance of computer systems and networks, and to coordinate computer network access and use

Occupation(s) in this Unit Group:

- 25220 Network/Server/Applications/Computer systems administrator

Occupation 25220 Network/Server/Applications/Computer systems administrator

Network/Server/Applications/Computer systems administrator controls, maintains and supports the optimal performance and security of information technology systems including computer networks, systems software and applications software. He/she monitors, diagnoses, resolves and documents issues with network, systems or applications problems. He/she supports user onboarding and may also provide support to software testing and transition processes.

Example(s) of job classified under this code:

- Applications support engineer

Example(s) of job not classified under this code:

- Data administrator, see 25211
- Network architect, see 25232
- Network engineer, see 25232
- Website administrator, see 35140

Unit Group 2523 Computer Network, Infrastructure and Platform Professionals

Computer network, infrastructure and platform professionals research, analyse and recommend strategies for network infrastructure and development. They also implement, manage, maintain and configure network hardware and software, and monitor, troubleshoot and optimise performance.

Tasks include:

- analysing, developing, interpreting and evaluating complex system design and architecture specifications, data models and diagrams in the development, configuration and integration of computer systems
- researching, analysing, evaluating and monitoring network infrastructure to ensure networks are configured to operate at optimal performance
- assessing and recommending improvements to network operations and integrated hardware, software, communications and operating systems
- providing specialist skills in supporting and troubleshooting network problems and emergencies
- installing, configuring, testing, maintaining and administering new and upgraded networks, software database applications, servers and workstations
- preparing and maintaining procedures and documentation for network inventory, and recording diagnosis and resolution of network faults, enhancements and modifications to networks, and maintenance instructions
- monitoring network traffic, and activity, capacity and usage to ensure continued integrity and optimal network performance

- developing of strategies, implementing, configuring and maintaining of virtualisation software within a computer system or a network of computer systems

Occupation(s) in this Unit Group:

- 25231 Cloud specialist
- 25232 IT infrastructure specialist
- 25233 Automation and orchestration engineer
- 25239 Computer network/infrastructure/platform professional n.e.c.

Occupation 25231 Cloud specialist

Cloud specialist deploys and configures solutions in the cloud. He/she automates cloud operations, develops infrastructure automation scripts and participates in the continuous improvement of cloud solutions. He/she participates in the specification, setup and runs Proof of Concepts (PoC) and demonstrations of cloud solutions. He/she may administer and maintain servers across virtual platforms.

Occupation 25232 IT infrastructure specialist

IT infrastructure specialist monitors and maintains computer network, infrastructure and platform operations. He/she supports the design, testing and implementation of routine installations of hardware including computers, network components and multifunctional devices and maintains infrastructure system analysis and reporting tools. He/she resolves complex issues and conducts fault analysis. He/she may also optimise system performance with automation to improve system quality and reliability and present solutions to enhance and improve systems' health and performance.

Example(s) of job classified under this code:

- IT site reliability engineer
- Infrastructure engineer (IT)
- Network architect
- Network engineer

Occupation 25233 Automation and orchestration engineer

Automation and orchestration engineer designs, develops and deploys end-to-end ICT network operations. He/she formulates network requirements, creates the network blueprint and provisions network slices in alignment with defined service level agreements (SLAs). He/she monitors the deployment and operations of the network to manage network performance, and orchestrates resource sourcing and consumption allocation to ensure that service delivery meets defined standards. He/she also configures, scales and deploys

infrastructure components and algorithms, and automates network operations to minimise human intervention.

Example(s) of job not classified under this code:

- Automated systems engineer, see 21413

Occupation 25239 Computer network/infrastructure/platform professional n.e.c.

This group covers computer network/infrastructure/platform professional not elsewhere classified.

Example(s) of job classified under this code:

- Data communication analyst

Unit Group 2524 Cybersecurity Professionals

Cybersecurity professionals specialise in providing security assurance of information technology systems.

Tasks include:

- developing plans to safeguard computer files against accidental or unauthorised modification, destruction, or disclosure and to meet emergency data processing needs
- training users and promoting security awareness to ensure system security and to improve server and network efficiency
- conferring with users to discuss issues such as computer data access needs, security violations, and programming changes
- monitoring current reports of computer viruses to determine when to update virus protection systems
- modifying computer security files to incorporate new software, correct errors, or change individual access status
- monitoring use of data files and regulate access to safeguard information in computer files
- performing risk assessments and executing tests of data processing system to ensure functioning of data processing activities and security measures
- encrypting data transmissions and erecting firewalls to conceal confidential information as it is being transmitted and to keep out tainted digital transfers

Occupation(s) in this Unit Group:

- 25241 Cyber risk specialist
- 25242 Penetration testing specialist
- 25243 Security operations specialist

- 25244 Digital forensics specialist
- 25245 Cybersecurity architect
- 25246 Cyber incident investigation specialist
- 25247 Threat analysis specialist
- 25249 Cybersecurity professional n.e.c.

Occupation 25241 Cyber risk specialist

Cyber risk specialist conducts cyber risk assessment in support of technology initiatives to help identify IT related risk and determines appropriate controls to mitigate risks. He/she monitors, tracks and manages risk mitigations and exceptions and ensures adequate monitoring capability is incorporated into solutions and products. He/she is familiar with cybersecurity standards, protocols and frameworks, and uses various cybersecurity monitoring and analysis tools and techniques.

Example(s) of job classified under this code:

- Cyber compliance specialist
- ICT resilience manager
- ICT security consultant
- ICT security specialist
- Product security engineer

Example(s) of job not classified under this code:

- Information technology quality assurance specialist, see 25151
- ICT auditor, see 25152
- Cyber threat analyst, see 25247

Occupation 25242 Penetration testing specialist

Penetration testing specialist designs and performs tests and checks cases to determine if infrastructure components, systems and applications meet confidentiality, integrity, authentication, availability, authorisation and non-repudiation standards. He/she translates requirements into test plan, writes and executes test scripts or codes in line with standards and procedures to determine vulnerability to attacks. He/she certifies infrastructure components, systems and applications that meet security standards.

Occupation 25243 Security operations specialist

Security operations specialist performs real-time analysis and trending of security log data from various security devices and systems. He/she maintains data sources feeding the log monitoring system, develops and maintains detection and alerting rules. He/she responds to user incident reports and evaluates the type and severity of security events. He/she executes initial triage of incidents to rule out false positives. He/she identifies recurring security issues and risks and develops mitigation plans and recommends process improvements. He/she interprets and applies security policies and procedures. He/she establishes escalation processes for security incidents and develops contingency plans and disaster recovery procedures.

Example(s) of job not classified under this code:

- Chief information security officer, see 13301

Occupation 25244 Digital forensics specialist

Digital forensics specialist conducts complex post-incident forensic analysis to investigate causes of intrusion, attack, loss or breach occurring in an organisation. He/she identifies and defines forensic issues and root causes. He/she develops reports that detail incident timeline, evidence, findings, conclusions and recommendations. He/she supports the design of a breach notification process after a security incident to minimise damage and downtime when attacks and exploits occur. He/she selects, tests and deploys security products and collects information about Internet-based criminal activities. He/she recommends corrective actions to prevent and mitigate internal control failures.

Example(s) of job classified under this code:

- Cyber forensics investigation specialist
- Digital forensics analyst

Example(s) of job not classified under this code:

- Cyber incident investigation specialist, see 25246
- Cyber threat investigation specialist, see 25247

Occupation 25245 Cybersecurity architect

Cybersecurity architect designs, develops and implements secure system architectures. He/she embeds security principles into the design of system architectures to mitigate the risks posed by new technologies and business practices. He/she designs artefacts, spanning design, development and implementation, into enterprise systems that describe security principles and how they relate to the overall enterprise system architecture. He/she performs routine activities related to the periodic review and audit activities of infrastructure security systems and maintains documentation of security standards and procedures.

Occupation 25246 Cyber incident investigation specialist

Cyber incident investigation specialist conducts complex analysis to investigate causes of intrusion, attack, loss or breach occurring in an organisation. He/she identifies and defines cyber threats and root causes. He/she develops reports that detail incident timeline, evidence, findings, conclusions and recommendations and presents these reports to senior stakeholders. He/she is responsible for overseeing the performance of security response during a cyber incident and resolving the incidents in a timely manner. He/she develops, implements cyber incident response strategies and recommends corrective actions to prevent and mitigate internal control failures.

Example(s) of job classified under this code:

- Cyber incident investigator
- Cyber incident respondent
- Cyber defence incident respondent

Example(s) of job not classified under this code:

- Digital forensics analyst, see 25244

Occupation 25247 Threat analysis specialist

Threat analysis specialist plans strategies to pre-empt potential threats in an organisation's cyber related systems. He/she runs tests and analyses to identify IT assets that are prone to cyber threats and attacks and implements threat mitigation strategies for different areas of the IT assets to ensure they are safe from cyber-attacks. He/she also monitors the open web and identifies potential threats and groups or individuals capable of attempting cyber-attacks.

Example(s) of job classified under this code:

- Cyber threat analyst
- Cyber threat investigation specialist
- ICT threat hunting researcher

Example(s) of job not classified under this code:

- Cyber compliance specialist, see 25241
- Digital forensics analyst, see 25244

Occupation 25249 Cybersecurity professional n.e.c.

This group covers cybersecurity professional not elsewhere classified.

Example(s) of job classified under this code:

- Cybersecurity researcher

Example(s) of job not classified under this code:

- Information technology testing specialist, see 25151
- Information technology (IT) auditor, see 25152
- ICT threat hunting researcher, see 25247

Unit Group 2529 Database, Network, Infrastructure and Cybersecurity Professionals Not Elsewhere Classified

This unit group covers database, network, infrastructure and cybersecurity professionals not elsewhere classified.

Occupation(s) in this Unit Group:

- 25291 Data centre engineer
- 25299 Other database/network/infrastructure/cybersecurity professional n.e.c.

Occupation 25291 Data centre engineer

Data centre engineer provides data centre systems maintenance and monitoring service and supports installation of data centre equipment. He/she monitors data volume, maintains internal documentation and performs independent troubleshooting of recurring issues whenever required.

Example(s) of job classified under this code:

- Data centre administrator

Occupation 25299 Other database/network/infrastructure/cybersecurity professional n.e.c.

This group covers other database/network/infrastructure/cybersecurity professional not elsewhere classified.

Example(s) of job classified under this code:

- Database records management specialist
- Enterprise records analyst

SUB-MAJOR GROUP 26 LEGAL, SOCIAL, RELIGIOUS AND CULTURAL PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 261 LEGAL PROFESSIONALS
- 262 LIBRARIANS, ARCHIVISTS AND CURATORS

- 263 SOCIAL SCIENCE RESEARCHERS AND PROFESSIONALS; RELIGIOUS PROFESSIONALS
- 264 AUTHORS, JOURNALISTS AND EDITORS
- 265 CREATIVE AND PERFORMING ARTISTS
- 266 SOCIAL SERVICES, COUNSELLING AND RELATED PROFESSIONALS

MINOR GROUP 261 LEGAL PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2611 Lawyers
- 2612 Judges
- 2619 Legal Professionals Not Elsewhere Classified

Unit Group 2611 Lawyers

Lawyers give clients legal advice on a wide variety of subjects (including litigation, intellectual property, corporate law, legal compliance, data privacy, dispute resolution and contract negotiation), draw up legal documents, represent clients before administrative boards or tribunals and plead cases or conduct prosecutions in courts of justice.

Tasks include:

- giving clients legal advice on a wide variety of subjects and undertaking legal business on clients' behalf
- researching legal principles, statutes and previous court decisions related to specific cases
- gathering evidence to formulate a defence or to initiate legal actions, by such means as interviewing clients and witnesses to ascertain the facts of a case
- evaluating findings and developing strategies and arguments in preparation for presentation of cases
- pleading clients' cases before courts of law, tribunals and administrative boards or instructing barristers to plead in higher courts of justice
- accepting briefs and pleading in the higher court
- acting as prosecutor on behalf of the Government in criminal cases
- negotiating settlements in matters which involve legal disputes
- drafting legislation and preparing government regulations based on existing laws
- drawing up legal documents such as contracts, real estate transactions and wills and preparing statements of legal opinions

Notes:

Lawyers undertaking the role of an arbitrator, mediator, or adjudicator on a part-time basis should be classified based on their full-time jobs, e.g. judges or lawyers. Law graduates undergoing pupillage are also classified here.

Occupation(s) in this Unit Group:

- 26111 Advocate/Solicitor (practising)
- 26112 In-house legal counsel (excluding judiciary, ministries and statutory boards)
- 26119 Lawyer n.e.c.

Occupation 26111 Advocate/Solicitor (practising)

Advocate/Solicitor (practising) provides legal advice on a wide variety of subjects and undertakes legal business on clients' behalf. He/she researches on legal principles, statutes and previous court decisions related to specific cases. He/she evaluates the findings and develops strategies and arguments in preparation for presentation of cases. He/she pleads clients' cases before courts of law, tribunals and administrative boards or instructs barristers to plead in higher courts of justice. He/she may also act as a prosecutor on behalf of the Government in criminal cases.

Example(s) of job classified under this code:

- Attorney (practising)
- Barrister (practising)
- Foreign lawyer (registered to practise in Singapore)
- Lawyer (practising)
- Intellectual property lawyer (practising)

Example(s) of job not classified under this code:

- Judge, see 26120
- Conveyance executive, see 34110
- Legal clerk, see 44170

Occupation 26112 In-house legal counsel (excluding judiciary, ministries and statutory boards)

In-house legal counsel (excluding judiciary, ministries and statutory boards) provides legal advisory outside courtrooms in relation to legal affairs which depends on the nature of the client. He/she also advises on matters such as merging of multinational corporations, housing purchase, modification of contracts and its implications. He/she helps clients to abide by the regulations and avoid committing illegal acts.

Example(s) of job classified under this code:

- Corporate counsel
- Intellectual property attorney/counsel/lawyer (in-house)
- Intellectual property lawyer (in-house)
- Patent attorney (excluding patent agent)/counsel/lawyer (in-house)

Example(s) of job not classified under this code:

- Intellectual property agent, see 24251
- Patent agent, see 24251
- Legal counsel (ministries and statutory boards), see 26119
- Legal service officer (appointed by Legal Service Commission), see 26119

Occupation 26119 Lawyer n.e.c.

This group covers lawyer not elsewhere classified.

Example(s) of job classified under this code:

- Legal counsel (ministries and statutory boards)
- Legal service officer (appointed by Legal Service Commission)
- Parliamentary draughtsman
- Public prosecutor
- State counsel

Unit Group 2612 Judges

Judges preside over civil and criminal proceedings in courts of law.

Tasks include:

- presiding over trials and hearings
- interpreting and enforcing rules of procedure and making rulings regarding the admissibility of evidence
- determining the rights and obligations of the parties involved
- weighing and considering evidence in non-jury trials and deciding legal guilt or innocence or degree of liability of the accused or defendant
- passing sentence on persons convicted in criminal cases, determining damages or other appropriate remedy in civil cases and issuing court orders
- researching legal issues and writing opinions on the issues

Occupation(s) in this Unit Group:

- 26120 Judge

Occupation 26120 Judge

Judge presides over civil and criminal proceedings in courts of law.

Example(s) of job classified under this code:

- Adjudicator
- Chief justice
- Judicial commissioner
- Magistrate
- Registrar in judiciary

Example(s) of job not classified under this code:

- Lawyer (practising), see 26111

Unit Group 2619 Legal Professionals Not Elsewhere Classified

This unit group covers legal professionals not elsewhere classified.

Tasks include:

- giving legal advice on legal aspects of various personal, business and administrative problems
- drawing up legal documents and contracts
- arranging property transfers
- determining, by inquest, the causes of any death not obviously due to natural causes

Occupation(s) in this Unit Group:

- 26191 Arbitrator/Mediator
- 26199 Other legal professional n.e.c.

Occupation 26191 Arbitrator/Mediator

Arbitrator/Mediator facilitates negotiation and conflict resolution through dialogue and alternative solutions, without having to take the case to litigation and courts. He/she resolves disputes between two parties by examining the case, interviewing both parties, and advising on a solution which is beneficial for them and compliant with legal regulations.

Occupation 26199 Other legal professional n.e.c.

This group covers other legal professional not elsewhere classified.

Example(s) of job classified under this code:

- Coroner

MINOR GROUP 262 LIBRARIANS, ARCHIVISTS AND CURATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2621 Archivists, Curators and Conservators
- 2622 Librarians and Related Information Professionals

Unit Group 2621 Archivists, Curators and Conservators

Archivists, curators and conservators collect, appraise and ensure the safekeeping and preservation of the contents of archives, artefacts and records of historical, cultural, administrative and artistic interest, and of art and other objects. They plan, devise and implement systems for the safekeeping of records and historically valuable documents.

Tasks include:

- evaluating and preserving records for administrative, historical, legal, evidential and other purposes
- directing or carrying out the preparation of indexes, bibliographies, microfilm copies and other reference aids to the collected material and making them available to users
- researching the origin, distribution and use of materials and objects of cultural and historical interest
- organising, developing and maintaining collections of artistic, cultural, scientific or historically significant items
- directing or undertaking classification and cataloguing of museum and art gallery collections and organising exhibitions
- researching into, appraising, and developing, organising and preserving historically significant and valuable documents such as government papers, private papers, photographs, maps, manuscripts and audio-visual materials
- preparing scholarly papers and reports
- planning and implementing the computerised management of archives and electronic records
- organising exhibitions at museums and art galleries, publicising exhibits and arranging special displays for general, specialised or educational interest
- appraising and acquiring archival materials to build and develop an archival collection for research purposes

Occupation(s) in this Unit Group:

- 26211 Archivist
- 26212 Curator
- 26213 Conservator

Occupation 26211 Archivist

Archivist collects, organises, preserves and provides access to contents of archives, artefacts and records of historical, cultural, administrative and artistic interest, and of art and other objects. He/she maintains records in a variety of formats, analogue or digital, and includes several kinds of media (documents, photographs, video and sound recordings, etc.).

Example(s) of job classified under this code:

- Archives researcher
- Historical archivist
- Multimedia archivist

Occupation 26212 Curator

Curator administers collections, such as artwork, collectibles, historic items, or scientific specimens of museums or other institutions. He/she may conduct research or public service and instructional activities. He/she may develop engaging and informative content to communicate exhibition and programme details.

Example(s) of job classified under this code:

- Educational institution curator
- Exhibition curator

Occupation 26213 Conservator

Conservator plans and organises the conservation of materials and objects in libraries, archives, museums, art galleries and other institutions. He/she may apply restoration techniques to conserve the objects.

Example(s) of job classified under this code:

- Fine art and polychrome conservator
- Fossil conservator

Unit Group 2622 Librarians and Related Information Professionals

Librarians and related information professionals collect, select, develop, organise and maintain library collections and other information repositories. They also organise and control other library services and provide information for users.

Tasks include:

- organising, developing and maintaining a systematic collection of books, periodicals and other printed, audio-visually and digitally recorded material
- selecting and recommending acquisitions of books and other printed or audio-visually and digitally recorded material
- organising, classifying and cataloguing library material
- managing library borrowing and inter-library loan facilities and information networks
- retrieving material and providing information to business and other users based on the collection itself or on library and information-network systems
- conducting research and analysing or modifying library and information services in accordance with changes in users' needs
- devising and implementing schemes and conceptual models for the storage, organisation, classification and retrieval of information
- preparing scholarly papers and reports
- performing manual, on-line and interactive media reference searches, making interlibrary loans and performing other functions to assist users in accessing library materials

Occupation(s) in this Unit Group:

- 26221 Librarian
- 26229 Librarian and related information professional n.e.c.

Occupation 26221 Librarian

Librarian collects, selects, develops, organises and maintains library collections and other information repositories. He/she organises and controls other library services and provides information for users.

Example(s) of job classified under this code:

- Library consultant
- Special collections librarian

Example(s) of job not classified under this code:

- Library officer, see 34331
- Library assistant, see 44110

- Library attendant, see 96251

Occupation 26229 Librarian and related information professional n.e.c.

This group covers librarian and related information professional not elsewhere classified.

Example(s) of job classified under this code:

- Bibliographer
- Cataloguer
- Technical information archivist

MINOR GROUP 263 SOCIAL SCIENCE RESEARCHERS AND PROFESSIONALS; RELIGIOUS PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2631 Economists
- 2632 Sociologists, Anthropologists and Related Professionals
- 2633 Historians, Political Scientists and Related Social Science Professionals
- 2636 Religious Professionals

Unit Group 2631 Economists

Economists conduct research, monitor data, analyse information and prepare reports and plans to resolve economic and business problems and develop models to analyse, explain and forecast economic behaviour and patterns. They provide advice to business, interest groups and governments to formulate solutions to present or project economic and business problems.

Tasks include:

- forecasting changes in the economic environment for short-term budgeting, long-term planning and investment evaluation
- formulating recommendations, policies and plans for the economy, corporate strategies and investment, and undertaking feasibility studies for projects
- monitoring economic data to assess the effectiveness, and advise on the appropriateness, of monetary and fiscal policies
- forecasting production and consumption of specific products and services based on records of past production and consumption and general economic and industry-specific conditions
- preparing forecasts of income and expenditure, interest rates and exchange rates
- analysing factors that determine labour force participation, employment, wages, unemployment and other labour market outcomes

- applying mathematical formulae and statistical techniques, testing economic theories and devising solutions to economic problems
- compiling, analysing and interpreting economic data using economic theory and a variety of statistical and other techniques
- advising on economic policy and possible courses of action in the light of past, present and projected economic factors and trends
- preparing scholarly papers and reports
- examining problems related to the economic activities of individual companies
- conducting research on market conditions in local, regional or national areas to set sales and pricing levels for goods and services, to assess market potential and future trends and to develop business strategies

Occupation(s) in this Unit Group:

- 26310 Economist

Occupation 26310 Economist

Economist conducts research, monitors data, analyses information, prepares reports and plans to resolve economic and business problems. He/she develops models to analyse, explain and forecast economic behaviour and patterns. He/she also provides advice to businesses, interest groups and governments to formulate solutions to present or project economic and business problems.

Example(s) of job classified under this code:

- Econometrician
- Economic advisor

Example(s) of job not classified under this code:

- Statistician, see 21221

Unit Group 2632 Sociologists, Anthropologists and Related Professionals

Sociologists, anthropologists and related professionals investigate and describe the structure of societies, the origin and evolution of humanity, and the interdependence between environmental conditions and human activities. They make the knowledge obtained available as a basis for policy decisions.

Tasks include:

- conducting research on the origin, development, structure, social patterns, organisations and inter-relationships of human society

- tracing the origin and evolution of humanity through the study of changing characteristics and cultural and social institutions
- tracing the development of humanity through the material remains of its past, such as dwellings, temples, tools, pottery, coins, weapons, or sculpture
- studying physical and climatic aspects of areas and regions, and correlating these findings with economic, social and cultural activities
- advising on the practical application of these findings in the formulation of economic and social policies for population groups and regions, and for the development of markets
- preparing scholarly papers and reports

Occupation(s) in this Unit Group:

- 26321 Sociologist/Anthropologist
- 26322 Social science researcher

Occupation 26321 Sociologist/Anthropologist

Sociologist/Anthropologist investigates the origin, development, way of life and social relationships of groups of human beings. He/she collects, organises, and interprets scientific data relating to community organisations, social customs, the family and other social phenomena. He/she may specialise in a branch of sociology such as criminology, demography, penology, social ecology, social pathology, or in rural, urban or industrial sociology, and be designated accordingly.

Example(s) of job classified under this code:

- Criminologist
- Ethnographer
- Penologist
- Social pathologist

Occupation 26322 Social science researcher

Social science researcher constructs research context and manages research projects that investigate social issues. He/she performs research by gathering information through interviews, focus groups and questionnaires. He/she analyses social problems and needs, and the different ways and techniques to respond to them.

Example(s) of job classified under this code:

- Design researcher (social science)
- Social and humanities scientist
- Social studies researcher

Example(s) of job not classified under this code:

- Political science researcher, see 26331
- Geographer, see 26339

Unit Group 2633 Historians, Political Scientists and Related Social Science Professionals

Historians, political scientists and related social science professionals conduct research into the nature of human experience and existence, phases or aspects of past human activities, and political structures, movements and behaviour. They document and report on findings to inform and guide political and individual actions.

Tasks include:

- researching, mostly by reasoning, into the general causes, principles and meanings of the world, human actions, experience and existence, and interpreting and developing philosophical concepts and theories
- consulting and comparing primary sources, such as original or contemporary records of past events, and secondary sources such as archaeological or anthropological findings
- extracting relevant material, checking its authenticity, and researching into and describing the history of a particular period, country or region, or a particular facet - for example economic, social or political - of its history
- conducting research in such fields as political philosophy, or past and present theory and practice of political systems, institutions or behaviour
- observing contemporary political institutions and opinions, collecting data on them from various sources, including interviews with government and political party officials and other relevant persons
- presenting findings and conclusions for publication or use by government, political parties or other organisations and interested persons
- preparing scholarly papers and reports

Occupation(s) in this Unit Group:

- 26331 Political scientist
- 26339 Historian/Political scientist and related social science professional n.e.c.

Occupation 26331 Political scientist

Political scientist conducts research into the origin, development, operation and interrelationships of political institutions and structures. He/she studies various phenomena of political behaviour and develops political theories around the phenomena. He/she conducts research into political philosophy and systematic theory, governmental institutions, public laws and administration, international laws and relations and other aspects of politics.

He/she also analyses, synthesises and interprets results of studies and recommends programmes and policies to institutions and organisations.

Example(s) of job classified under this code:

- Political philosopher
- Political science researcher

Example(s) of job not classified under this code:

- Social science researcher, see 26322

Occupation 26339 Historian/Political scientist and related social science professional n.e.c.

This group covers historian/political scientist and related social science professional not elsewhere classified.

Example(s) of job classified under this code:

- Archaeologist
- Genealogist
- Geographer
- Philosopher

Unit Group 2636 Religious Professionals

Religious professionals function as perpetuators of sacred traditions, practices and beliefs. They conduct religious services, celebrate or administer the rites of a religious faith or denomination, provide spiritual and moral guidance and perform other functions associated with the practice of a religion.

Tasks include:

- perpetuating sacred traditions, practices and beliefs
- conducting religious services, rites and ceremonies
- undertaking various administrative and social duties, including participating in committees and meetings of religious organisations
- providing spiritual and moral guidance in accordance with the religion professed
- propagating religious doctrines in own country or abroad
- preparing religious sermons and preaching
- developing and directing study courses and religious education programmes
- counselling individuals regarding interpersonal, health, financial, and religious problems

- scheduling and participating in special events such as camps, conferences, seminars, and retreats

Occupation(s) in this Unit Group:

- 26361 Minister of religion
- 26369 Religious professional n.e.c.

Occupation 26361 Minister of religion

Minister of religion conducts religious worship and prepares other spiritual functions associated with the beliefs and practices of religious faiths or denominations as delegated by ordinance, licence or other authorisation and provides spiritual and moral guidance and assistance to members. He/she leads the congregation in worship services, performs rites such as baptism, confirmation and communion and conducts marriage and funeral services. He/she may participate in religious court proceedings to interpret religious guidelines.

Example(s) of job classified under this code:

- Abbot
- Imam
- Pastor

Example(s) of job not classified under this code:

- Preacher (non-ordained), see 39910

Occupation 26369 Religious professional n.e.c.

This group covers religious professional not elsewhere classified.

Example(s) of job classified under this code:

- Evangelist
- Missionary
- Salvationist
- Theologian

Example(s) of job not classified under this code:

- Preacher (non-ordained), see 39910

MINOR GROUP 264 AUTHORS, JOURNALISTS AND EDITORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2641 Authors and Related Writers

- 2642 Journalists
- 2643 Translators and Interpreters

Unit Group 2641 Authors and Related Writers

Authors and related writers plan, research and write books, scripts, storyboards, plays, essays, speeches, manuals, specifications and other non-journalistic articles for publication or presentation.

Tasks include:

- conceiving, writing and editing novels, plays, scripts, poetry and other material for publication or presentation
- conducting research to establish factual content and to obtain other necessary information
- writing scripts and continuities and preparing programmes for stage, film, radio and television productions
- analysing material, such as specifications, notes and drawings, and writing manuals, user guides and other documents to explain clearly and concisely the installation, operation and maintenance of software, electronic, mechanical and other equipment
- writing brochures, handbooks and similar technical publications
- selecting material for publication, checking style, grammar and accuracy of content, arranging for any necessary revisions and checking proof copies before printing

Occupation(s) in this Unit Group:

- 26411 Author
- 26412 Script writer/editor
- 26413 Content writer
- 26414 Technical writer
- 26415 Book editor
- 26419 Author and related writer n.e.c.

Occupation 26411 Author

Author writes original literary works for publication or theatrical presentations by determining the subject matter and collecting the necessary data or facts. He/she plans and organises material in the form required and can write fiction, biographies, essays, poems, plays or similar literary compositions. He/she revises the composition to produce good literary style. He/she may also be designated according to type of writing done.

Example(s) of job classified under this code:

- Novelist

- Playwright
- Poet

Example(s) of job not classified under this code:

- Book critic, see 26421
- Journalist, see 26421

Occupation 26412 Script writer/editor

Script writer/editor plans, writes and edits original stories for dramatisation on radio, television or films. He/she chooses a subject to write on and uses writing techniques to develop the plot and storyline such as creating suspense and complications of incidents and the final outcome. He/she edits finished material to ensure conformity with production requirements, company policy, national laws and local regulations. He/she may direct and coordinate work of writers preparing programmes, continuity and scripts for motion picture plays and television and radio broadcasts.

Example(s) of job classified under this code:

- TV script writer

Occupation 26413 Content writer

Content writer creates original visual and verbal messaging content for an advertising campaign to describe the merits of a subject matter such as an organisation's brand, product or service. He/she also conducts editorial review of the content to ensure accuracy and consistency in language, style and tone.

Example(s) of job classified under this code:

- Advertising copywriter

Occupation 26414 Technical writer

Technical writer designs and writes manuals, brochures, handbooks and other similar technical publications in a form readily intelligible to intended readers. He/she directs the preparation of photographs, technical drawings, sketches and other illustrative material. He/she submits draft manuals for technical comment and makes corrections where necessary. He/she may specialise in a particular technical subject such as electronics.

Example(s) of job classified under this code:

- Technical copywriter

Occupation 26415 Book editor

Book editor reviews and evaluates manuscripts of novels, biographies, collections of short stories, essays and poems, encyclopaedias, textbooks and other books submitted by authors and literary agents. He/she makes recommendations to publishers regarding the acceptability of material for publication and specifies the conditions of publication contracts. He/she also proposes the rearrangement, reduction or revision of manuscripts where necessary and negotiates the abovementioned with the respective authors.

Example(s) of job classified under this code:

- Children's book editor
- Manuscripts editorial director

Example(s) of job not classified under this code:

- Newspaper editor, see 26422

Occupation 26419 Author and related writer n.e.c.

This group covers author and related writer not elsewhere classified.

Example(s) of job classified under this code:

- Blogger
- Lyric writer
- Scenario writer
- Speechwriter

Unit Group 2642 Journalists

Journalists research, investigate, interpret and communicate news and public affairs through newspapers, television, radio and other media.

Tasks include:

- collecting local, national and international news through interviews, investigation and observation, attending public events, seeking out records, reviewing written work, attending film and stage performances
- collecting, reporting and commenting on news and current affairs for publication in newspapers and periodicals, or for broadcasting by radio, television or webcast media
- receiving, analysing and verifying news and other copy for accuracy
- interviewing politicians and other public figures at press conferences and on other occasions, including individual interviews recorded for radio, television or webcast media

- researching and reporting on developments in specialised fields such as medicine, science and technology
- writing editorials and commentaries on topics of current interest to stimulate public interest and express the views of a publication or broadcasting station
- writing critical reviews of literary, musical and other artistic works based on knowledge, judgement and experience for newspapers, television, radio and other media
- selecting material for publication, checking style, grammar, accuracy and legality of content and arranging for any necessary revisions
- liaising with production staff in checking final proof copies immediately prior to printing
- selecting, assembling and preparing publicity material about business or other organisations for issue through press, radio, television and other media

Occupation(s) in this Unit Group:

- 26421 Journalist
- 26422 Editor (news/periodicals)

Occupation 26421 Journalist

Journalist researches, investigates, interprets and communicates news and public affairs through newspapers, television, radio and other media.

Example(s) of job classified under this code:

- Book critic
- Columnist
- Feature writer
- Newspaper correspondent
- Reporter

Example(s) of job not classified under this code:

- Author, see 26411
- Newscaster (radio), see 26561
- Photo-journalist, see 34310

Occupation 26422 Editor (news/periodicals)

Editor (news/periodicals) selects, revises and arranges material for publication in newspapers and periodicals. He/she allots assignments to reporters, correspondents and photographers. He/she appraises reports, commentaries and photographs submitted and selects them for publication. He/she also assigns writing of editorials and leading articles to specialist writers.

He/she examines and revises material for conformity with established policy and literary standards of publishers.

Example(s) of job classified under this code:

- Fashion editor
- Newspaper editor
- Newspaper editor-in-chief
- Sub-editor (news/periodicals)

Example(s) of job not classified under this code:

- Book editor, see 26415
- Photo-journalist, see 34310
- Television/Motion picture camera operator, see 35213

Unit Group 2643 Translators and Interpreters

Translators and interpreters translate or interpret from one language into another and study the origin, development and structure of languages.

Tasks include:

- studying relationships between ancient parent languages and modern language groups, tracing the origin and evolution of words, grammar and language forms, and presenting findings
- advising on or preparing language classification systems, grammars, dictionaries and similar materials
- translating from one language into another and ensuring that the correct meaning of the original is retained, that legal, technical or scientific works are correctly rendered, and that the phraseology and terminology of the spirit and style of literary works are conveyed as far as possible
- developing methods for the use of computers and other instruments to improve productivity and quality of translation
- interpreting from a spoken or a signed language into another spoken or signed language, in particular at conferences, meetings and similar occasions, and ensuring that the correct meaning and, as far as possible, the spirit of the original are transmitted
- revising and correcting translated material

Occupation(s) in this Unit Group:

- 26431 Translator
- 26432 Interpreter

Occupation 26431 Translator

Translator converts works of literature, scientific articles, newspapers and magazine articles, political and legal documents, correspondence and other written or printed matter from one language into one or more other languages, utilising thorough knowledge of his/her mother-tongue and at least one foreign language and referring, where necessary, to dictionaries. He/she usually specialises in a particular language or subject-matter and is designated accordingly.

Example(s) of job classified under this code:

- Language translator
- Translation assistant

Occupation 26432 Interpreter

Interpreter converts spoken passages in one or more languages into one or more other languages. He/she interprets speech directly or from played-back recordings, utilising thorough knowledge of his/her mother-tongue and at least one foreign language. He/she may use shorthand to facilitate the interpretation of speeches and may make translations of articles and documents in writing. He/she usually specialises in a particular language or subject-matter and is designated accordingly. He/she may also interpret at court proceedings and be designated as Court interpreter.

Example(s) of job classified under this code:

- Court interpreter
- Sign language interpreter

MINOR GROUP 265 CREATIVE AND PERFORMING ARTISTS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2651 Visual Artists
- 2652 Musicians, Composers and Singers
- 2653 Dancers and Choreographers
- 2654 Film, Stage and Related Directors and Producers
- 2655 Actors
- 2656 Radio and Television Presenters and Related Professionals

Unit Group 2651 Visual Artists

Visual artists create and execute works of art by sculpting, painting, drawing, creating cartoons, engraving or using other techniques.

Tasks include:

- conceiving and developing ideas, designs and styles for paintings, drawings and sculptures
- arranging objects, positioning models, and selecting landscapes and other visual forms according to chosen subject matter
- selecting artistic media, methods and materials
- creating representational or abstract three-dimensional or relief forms by shaping, carving and working and combining materials such as, wood, stone, clay, metal, ice or paper
- creating representational or abstract drawings and paintings using pencils, ink, chalk, oil paints, water colours or through the application of other techniques
- creating drawings and engraving or etching them on metal, wood, or other materials
- creating cartoons to depict persons and events, often in caricature
- restoring damaged, soiled and faded paintings and other art objects

Occupation(s) in this Unit Group:

- 26511 Painter
- 26519 Visual artist n.e.c.

Occupation 26511 Painter

Painter paints landscapes, portraits, still lifes, abstract designs and similar compositions, using oil or water colours, or other media.

Example(s) of job classified under this code:

- Artist (painting)
- Miniature painter
- Portrait painter

Example(s) of job not classified under this code:

- Construction painter, see 71311

Occupation 26519 Visual artist n.e.c.

This group covers visual artist not elsewhere classified.

Example(s) of job classified under this code:

- Creative artist (glass and ceramics)
- Painting restorer
- Picture restorer

Example(s) of job not classified under this code:

- Animator, see 21662
- Art and craft instructor (extracurriculum), see 36202
- Decorative painter, see 73160

Unit Group 2652 Musicians, Composers and Singers

Musicians, composers and singers write, arrange, conduct and perform musical compositions.

Tasks include:

- creating melodic, harmonic and rhythmic structures to express ideas and emotions in musical form
- translating ideas and concepts into standard musical signs and symbols for reproduction and performance
- adapting or arranging music for particular instrumental or vocal groups, instruments or occasions
- conducting instrumental or vocal groups
- selecting music for performances and assigning instrumental parts to musicians
- playing one or more musical instruments as a soloist or as a member of an orchestra or a musical group
- singing as soloists or members of vocal groups or other bands
- practising and rehearsing to maintain a high standard of performance

Occupation(s) in this Unit Group:

- 26521 Instrumentalist
- 26522 Composer/Orchestrator
- 26523 Conductor/Director of orchestra/band/choir
- 26524 Singer
- 26529 Musician/Composer/Singer n.e.c.

Occupation 26521 Instrumentalist

Instrumentalist plays one or more musical instruments as a soloist, accompanist or member of an orchestra, band or other musical group. He/she studies and rehearses scores, tunes instruments to the proper pitch, plays music by manipulating keys, bows, valves, strings or percussion devices, depending on the type of instrument being played. He/she may improvise or transpose music or compose or arrange music. In an orchestra, he/she is usually designated according to the instrument played such as violinist, drummer or pianist.

Example(s) of job classified under this code:

- Cellist
- Drummer
- Flutist
- Pianist

Occupation 26522 Composer/Orchestrator

Composer/Orchestrator writes musical compositions such as symphonies, sonatas or operas. He/she translates compositions into standard musical signs and symbols on scored music paper. He/she may write words to accompany music. He/she adapts melodies to suit the type and style of orchestras or bands and to produce various kinds of effects. He/she determines instruments to be employed, writes musical scores to produce the desired musical effect, rewrites music written for one instrument or purpose into suitable forms for other instruments or purposes.

Example(s) of job classified under this code:

- Music arranger
- Songwriter

Occupation 26523 Conductor/Director of orchestra/band/choir

Conductor/Director of orchestra/band/choir directs rehearsals and conducts performances of an orchestra or band. He/she selects musical compositions to be rendered and arranges programmes. He/she trains groups in proper rendition, arranges location of group members so as to harmonise musical elements into a unified whole. He/she also directs groups in execution of musical compositions by beating time and giving other signals to control changes in tempo and entries of members.

Example(s) of job classified under this code:

- Chorus master
- Dance band leader
- Music director (choir)
- Vocal group conductor

Occupation 26524 Singer

Singer uses his/her voice as a musical instrument, with different vocal ranges. He/she performs for live audiences and for recordings in different musical genres.

Example(s) of job classified under this code:

- Alto

- Baritone
- Contralto
- Soprano
- Vocalist

Example(s) of job not classified under this code:

- Chorus dancer, see 26530

Occupation 26529 Musician/Composer/Singer n.e.c.

This group covers musician/composer/singer not elsewhere classified.

Example(s) of job classified under this code:

- Musical programme director

Example(s) of job not classified under this code:

- Choreographer, see 26530
- Dancer, see 26530

Unit Group 2653 Dancers and Choreographers

Dancers and choreographers conceive and create or perform dances.

Tasks include:

- conceiving and creating dances, which often convey a story, theme, idea or mood, by a pattern of steps, movements and gestures
- performing dances as a soloist, with a partner or as a member of a dancing group before live audiences or for film, television or other visual media
- training, exercising and attending dance classes to maintain the required levels of ability and fitness
- directing and participating in rehearsals to practice dance steps and techniques required for a performance
- auditioning for dance roles or for memberships in dance companies
- coordinating the production music with the music directors

Occupation(s) in this Unit Group:

- 26530 Dancer/Choreographer

Occupation 26530 Dancer/Choreographer

Dancer/Choreographer conceives and creates or performs dances.

Example(s) of job classified under this code:

- Ballet dancer
- Ballroom dancer
- Chorus dancer

Example(s) of job not classified under this code:

- Dance instructor (extracurriculum), see 36205

Unit Group 2654 Film, Stage and Related Directors and Producers

Film, stage and related directors and producers oversee and control the technical and artistic aspects of motion pictures, television or radio productions, commercials, videos and stage shows.

Tasks include:

- choosing writers, studying scripts to determine artistic interpretation, and instructing actors on acting methods
- directing all aspects of dramatic productions on stage, television, radio or in motion pictures, including choice of actors, and making final decisions concerning costumes, set designs, sound or lighting effects
- planning, organising and controlling the various stages and scheduling involved in the production of presentations, motion pictures, television shows and radio programmes
- engaging and supervising all technical personnel, and determining the treatment, scope and scheduling of production
- maintaining production archives and negotiating royalties
- creating, planning, writing scripts for recording, videotaping and editing programmes
- supervising the positioning of scenery, props and lighting and sound equipment

Occupation(s) in this Unit Group:

- 26541 Producer (stage/film/television/commercial/video/radio)
- 26542 Director (stage/film/television/commercial/video/radio)
- 26543 Artistic director (stage/film/television/commercial/video/radio)
- 26544 Editor (radio/television/video)
- 26549 Film/Stage and related director/producer n.e.c.

Occupation 26541 Producer (stage/film/television/commercial/video/radio)

Producer (stage/film/television/commercial/video/radio) leads the development and execution of production plans for stage, motion pictures, television, commercial, video or radio programmes. He/she provides direction regarding the nature of the content to be produced by the organisation and oversees the technical and logistical aspects of recording and editing. He/she plans and coordinates all aspects of the production such as the concept development, publication and financing.

Example(s) of job classified under this code:

- Impresario
- Producer of commercials
- Theatrical producer

Occupation 26542 Director (stage/film/television/commercial/video/radio)

Director (stage/film/television/commercial/video/radio) interprets script, conducts rehearsals and directs activities of cast and technical crew for stage, motion pictures, television, commercial, video or radio programmes. He/she makes creative decisions, such as the interpretation of scripts, choice of actors or guests, set designs, sound, special effects, and choreography.

Example(s) of job classified under this code:

- Animation director
- Branded content advertising videos director
- Motion picture director
- Theatrical director

Occupation 26543 Artistic director (stage/film/television/commercial/video/radio)

Artistic director (stage/film/television/commercial/video/radio) determines and oversees implementation of artistic policies, design concepts and presentation approaches for stage, motion pictures, television, commercial, video or radio programmes.

Example(s) of job classified under this code:

- Cinematography director
- Director of photography (motion picture)
- Lighting director
- Music director (theatre)
- Production designer (film)

Example(s) of job not classified under this code:

- Photographer, see 34310
- IT support technician, see 35123

Occupation 26544 Editor (radio/television/video)

Editor (radio/television/video) coordinates staff of writers that prepare scripts for radio, television and video broadcasting. He/she assigns duties to writers, reads and edits materials prepared by staff members and selects inserts for radio, television and video.

Occupation 26549 Film/Stage and related director/producer n.e.c.

This group covers film/stage and related director/producer not elsewhere classified.

Example(s) of job classified under this code:

- Stage manager

Unit Group 2655 Actors

Actors portray roles in motion pictures, television or radio productions and stage shows.

Tasks include:

- learning lines and cues and playing parts in dramatic productions on stage, commercials, television, radio or in motion pictures
- assuming characters created by a playwright or author and communicating this to an audience
- telling stories or reading literary works aloud to educate or entertain listeners
- preparing for performances through rehearsals under the instruction and guidance of production directors
- reading scripts and undertaking research to gain understanding of parts, themes and characteristics
- acting parts and portraying roles as developed in rehearsals in film, television, radio and stage productions

Occupation(s) in this Unit Group:

- 26550 Actor

Occupation 26550 Actor

Actor portrays roles in motion pictures, television or radio productions and stage shows.

Unit Group 2656 Radio and Television Presenters and Related Professionals

Radio and television presenters and related professionals read news bulletins, conduct interviews, and make other announcements or introductions on radio, television, and in theatres and other establishments or media.

Tasks include:

- reading news bulletins and making other announcements on radio or television
- introducing performing artists or persons being interviewed, and making related announcements on radio, television, or in theatres, nightclubs and other establishments
- interviewing persons in public, especially on radio and television
- studying background information in order to prepare for programmes or interviews
- commenting on music and other matters, such as weather or traffic conditions

Occupation(s) in this Unit Group:

- 26561 Radio/Television presenter
- 26569 Radio/Television presenter and related professional n.e.c.

Occupation 26561 Radio/Television presenter

Radio/Television presenter reads news bulletins, conducts interviews and makes other announcements or introductions on radio and television.

Example(s) of job classified under this code:

- Newscaster (radio)
- Radio announcer

Example(s) of job not classified under this code:

- Journalist, see 26421

Occupation 26569 Radio/Television presenter and related professional n.e.c.

This group covers radio/television presenter and related professional not elsewhere classified.

Example(s) of job classified under this code:

- Dubbing artiste

MINOR GROUP 266 SOCIAL SERVICES, COUNSELLING AND RELATED PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 2661 Psychologists
- 2662 Social Work Professionals
- 2663 Counselling Professionals
- 2664 Employment Support Professionals

Unit Group 2661 Psychologists

Psychologists research into and study the mental processes and behaviour of human beings as individuals or in groups, and apply this knowledge to promote personal, social, educational or occupational adjustment and development.

Tasks include:

- planning and carrying out tests to measure mental, physical and other characteristics such as intelligence, abilities, aptitudes and potentialities, interpreting and evaluating results, and providing advice
- analysing the effect of heredity, social, occupational and other factors on individual thought and behaviour
- conducting counselling or therapeutic interviews with individuals and groups, and providing follow-up services
- maintaining required contacts, such as those with family members, educational authorities or employers, and recommending possible solutions to, and treatment of, problems
- studying psychological factors in the diagnosis, treatment and prevention of mental illnesses and emotional or personality disorders, and conferring with related professionals
- preparing scholarly papers and reports
- formulating achievement, diagnostic and predictive tests for use by teachers in planning methods and content of instruction

Occupation(s) in this Unit Group:

- 26611 Clinical psychologist
- 26612 Educational psychologist
- 26613 Industrial/Organisational psychologist
- 26619 Psychologist n.e.c.

Occupation 26611 Clinical psychologist

Clinical psychologist diagnoses and evaluates mental, emotional and behavioural disorders of individuals through observation, interview and psychological tests. He/she formulates and administers programmes of treatment to support these individuals.

Example(s) of job not classified under this code:

- Psychiatrist, see 22128

Occupation 26612 Educational psychologist

Educational psychologist provides psychological and emotional support to students in need. He/she specialises in the provision of direct support and interventions to students, conducting psychological testing and assessment, and consulting with families, teachers and other school-based student support professionals, such as school social workers and educational counsellors, about the students. He/she investigates learning and teaching, and develops psychological techniques to foster the development and skills of individuals and groups in educational settings.

Example(s) of job not classified under this code:

- Education methods adviser, see 23611
- School counsellor, see 26634

Occupation 26613 Industrial/Organisational psychologist

Industrial/Organisational psychologist applies psychological principles and techniques to organisational problems, such as those related to human resources, administration, management, sales and marketing. He/she studies occupational behaviour, working conditions and organisational structure, and addresses issues of work performance and organisational design.

Example(s) of job classified under this code:

- Occupational psychologist

Occupation 26619 Psychologist n.e.c.

This group covers psychologist not elsewhere classified.

Example(s) of job classified under this code:

- Social psychologist

Unit Group 2662 Social Work Professionals

Social work professionals provide help, support and guidance to people with social problems such as unemployment, poverty, disability, addiction, criminal and delinquent behaviour and other problems. They discuss the specific issues with their service users and analyse their assessment history, then prepare detailed cases and formulate support plans to help them overcome their problems.

Tasks include:

- interviewing clients individually, in families, or in groups, to assess their situation and problems and determine the types of services required
- analysing clients' situation and presenting alternative approaches to resolving problems
- compiling case records or reports for courts and other legal proceedings
- planning and implementing programmes of assistance for clients including crisis intervention and referral to agencies that provide financial assistance, legal aid, housing, medical treatment and other services
- investigating cases of abuse or neglect and taking action to protect children and other at risk persons
- working with offenders during and after sentence, to help them to integrate into the community and to change attitudes and behaviour in order to reduce further offending
- providing advice to prison governors and to probation and parole review boards that help determine whether, and under what conditions, an offender should be incarcerated, released from prison or undergo alternative correctional measures
- acting as advocates for client groups in the community and lobbying for solutions to problems affecting them
- developing prevention and intervention programmes to meet community needs
- maintaining contact with other social service agencies, educational institutions and healthcare providers involved with clients to provide information and obtain feedback on clients' overall situation and progress

Occupation(s) in this Unit Group:

- 26621 Social worker (general)
- 26622 Medical social worker
- 26623 Youth work professional
- 26629 Social work professional n.e.c.

Occupation 26621 Social worker (general)

Social worker (general) helps individuals and families to understand and resolve their personal and social problems. He/she interviews clients and investigates the nature, extent and causes of their problems, taking account of social, economic, environmental, medical, psychological and other potentially relevant factors. He/she determines the type of assistance required, counsels clients, assists them to improve their understanding of their problems and secures their co-operation in coping with their problems. He/she follows the progress of clients after the immediate problems have been resolved. He/she may also provide oversight of the case work and group work interventions, supervision and mentorship to other social workers, and delivers education and training for staff and other stakeholders.

Example(s) of job classified under this code:

- Case worker (social service)
- Child welfare case worker
- Community social worker
- Prison welfare worker
- Social welfare case worker

Example(s) of job not classified under this code:

- Social services programme manager, see 13441
- Social work associate, see 34122
- Personal care worker (home care), see 53209

Occupation 26622 Medical social worker

Medical social worker provides individuals, families and care-givers with the psychosocial support they need to cope with chronic, acute or terminal illnesses. He/she provides patients with information and counselling, and makes referrals for other services. He/she may also provide case and care management or interventions designed to promote health, prevent disease and address barriers to access to healthcare.

Example(s) of job classified under this code:

- Hospital social worker
- Palliative care social worker

Occupation 26623 Youth work professional

Youth work professional supports the development of youths into well-adjusted and contributing members of society. He/she provides interventions and programmes to youths. He/she develops and implements case work, group work and community development activities and programmes. He/she guides and supports youths in their personal, social and educational development. He/she may also provide oversight of the organisation's youth outreach and engagement efforts, and supervision and mentorship to other youth workers.

Example(s) of job classified under this code:

- Delinquency prevention social worker
- Probation officer
- Youth worker

Example(s) of job not classified under this code:

- Youth work associate, see 34121
- Social work associate, see 34122

Occupation 26629 Social work professional n.e.c.

This group covers social work professional not elsewhere classified.

Example(s) of job classified under this code:

- Homelessness social services worker
- Migrant social worker

Unit Group 2663 Counselling Professionals

Counselling professionals help people overcome their problems and cope with difficult situations by providing a safe, confidential and encouraging environment in which to contemplate their emotional state. They empower service users to make their own decisions by offering them a structured and focused way of addressing their problems.

Tasks include:

- interviewing clients, preparing case histories and assessing problems
- providing counselling, therapy and mediation services and facilitating group sessions to assist clients to develop skills and insights needed to deal with and resolve their social and personal problems
- liaising with social service agencies, educational institutions and healthcare providers involved with clients to provide information and obtain feedback on clients' overall situation and progress, and identify additional or alternative services and provide referrals
- evaluating the effectiveness of counselling programmes and interventions, and clients' progress in resolving identified problems and movement toward defined objectives

Occupation(s) in this Unit Group:

- 26631 Counsellor (rehabilitation)
- 26632 Counsellor (drugs/alcohol)
- 26633 Counsellor (family)
- 26634 School counsellor
- 26639 Counselling professional n.e.c.

Occupation 26631 Counsellor (rehabilitation)

Counsellor (rehabilitation) counsels individuals to maximise the independence and employability of persons coping with personal and social difficulties that result from birth defects, illnesses, diseases, accidents, aging or the stress of daily life. He/she coordinates activities for residents of care and treatment facilities. He/she also assesses clients' needs and, designs and implements rehabilitation programmes that may include personal counselling and training.

Example(s) of job classified under this code:

- Parole officer
- Rehabilitation counsellor

Example(s) of job not classified under this code:

- Occupational therapist, see 22680
- Social work associate, see 34122

Occupation 26632 Counsellor (drugs/alcohol)

Counsellor (drugs/alcohol) provides assistance and counselling to individuals and families dealing with drug and alcohol addictions, monitors their progress, advocates for them, and performs crisis interventions and group therapy. He/she assists the persons with the consequences of their addictions which can be unemployment, physical or mental disorders and poverty. He/she may also prepare educational programmes for high-risk populations.

Example(s) of job classified under this code:

- Drugs and alcohol counsellor

Occupation 26633 Counsellor (family)

Counsellor (family) provides counselling for individuals, couples and families facing challenges in their relationships. This can include marriage, divorce, parent-child and issues amongst siblings or extended family members.

Example(s) of job classified under this code:

- Family case worker
- Family planning counsellor

Example(s) of job not classified under this code:

- Family service worker, see 34122

Occupation 26634 School counsellor

School counsellor provides practical and emotional support to students in educational institutions, either in small groups, classrooms, or individually. He/she functions as an accessible school official whom students may contact for a wide variety of issues. He/she may also provide advice on personal problems such as social integration and behavioural issues, and on school-related matters such as composing adequate curriculum schedules, discussing test scores, and informing students on further education options. He/she may work closely with a school social worker and/or school psychologist and make referrals to other support services if necessary.

Example(s) of job classified under this code:

- Admissions counsellor
- Educational guidance counsellor
- Student vocational counsellor

Example(s) of job not classified under this code:

- Education methods adviser, see 23611
- Educational psychologist, see 26612

Occupation 26639 Counselling professional n.e.c.

This group covers counselling professional not elsewhere classified.

Example(s) of job classified under this code:

- Gambling counsellor
- Sexual assault counsellor

Unit Group 2664 Employment Support Professionals

Employment support professionals provide support and guidance to people who face difficulties in finding jobs and require more community support to secure employment. Their clients include persons with disabilities.

Tasks include:

- identifying suitable job openings for their clients
- contacting employers and facilitating communication between employers and clients
- conducting training in relevant work skills
- redesigning job roles to support clients' continued employment
- conducting job site visits and tracking clients' progress in their jobs

Occupation(s) in this Unit Group:

- 26640 Job coach (disability)

Occupation 26640 Job coach (disability)

Job coach (disability) provides assistance to persons with disabilities who require additional support to secure and retain employment. He/she identifies suitable job roles for his/her clients, provides training in relevant work skills and redesigns job roles. He/she conducts job site visits following job placement to provide job support and track clients' progress. He/she

performs these tasks in settings such as the workplaces of his/her clients, assisted training and employment centres, or job sites of partner employers.

Example(s) of job classified under this code:

- Employment support workshop instructor (for persons with disabilities)

MAJOR GROUP 3 ASSOCIATE PROFESSIONALS AND TECHNICIANS

Occupation(s) in this Major Group are classified into the following Sub-major Group(s):

- 31 PHYSICAL AND ENGINEERING SCIENCE ASSOCIATE PROFESSIONALS
- 32 HEALTH ASSOCIATE PROFESSIONALS
- 33 BUSINESS AND ADMINISTRATION ASSOCIATE PROFESSIONALS
- 34 LEGAL, SOCIAL, CULTURAL AND RELATED ASSOCIATE PROFESSIONALS
- 35 INFORMATION AND COMMUNICATIONS TECHNICIANS
- 36 TEACHING ASSOCIATE PROFESSIONALS
- 39 OTHER ASSOCIATE PROFESSIONALS NOT ELSEWHERE CLASSIFIED

SUB-MAJOR GROUP 31 PHYSICAL AND ENGINEERING SCIENCE ASSOCIATE PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 310 ASSISTANT ENGINEERS
- 311 PHYSICAL AND ENGINEERING SCIENCE TECHNICIANS I
- 312 PHYSICAL AND ENGINEERING SCIENCE TECHNICIANS II (Cont'd)
- 313 PROCESS CONTROL TECHNICIANS
- 314 LIFE SCIENCE TECHNICIANS AND RELATED ASSOCIATE PROFESSIONALS
- 315 SHIP AND AIRCRAFT CONTROLLERS AND TECHNICIANS
- 316 PREMISES AND PARKS OFFICERS
- 317 BUILDING, QUALITY AND SAFETY INSPECTORS

MINOR GROUP 310 ASSISTANT ENGINEERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3100 Assistant Engineers

Unit Group 3100 Assistant Engineers

Assistant engineers assist in the development of operational methods in engineering, design of structures, machinery and equipment or application of existing knowledge to solve engineering problems.

Tasks include:

- assisting in the design of new products
- developing or improving production processes
- assisting in technical supervision of manufacture, utilisation, maintenance and repair of structures, machinery and equipment

Occupation(s) in this Unit Group:

- 31001 Assistant civil/structural engineer
- 31002 Assistant electrical engineer
- 31003 Assistant electronics engineer
- 31004 Assistant mechanical engineer
- 31005 Assistant chemical engineer
- 31006 Assistant manufacturing engineer
- 31009 Assistant engineer n.e.c.

Occupation 31001 Assistant civil/structural engineer

Assistant civil/structural engineer provides assistance to the civil engineer and may lead a team of technicians. He/she supports the development of civil and structural engineering designs and concepts. He/she provides technical support during construction and coordinates with customers, contractors, suppliers and consultants, to ensure that the products or work is performed to specification.

Example(s) of job classified under this code:

- Assistant building construction engineer
- Assistant piling engineer
- Assistant soil mechanics engineer

Example(s) of job not classified under this code:

- Civil engineering technician, see 31121
- Structural engineering technician, see 31121
- Building technician, see 31122
- Construction inspector, see 31122
- Resident technical officer, see 31124

Occupation 31002 Assistant electrical engineer

Assistant electrical engineer provides assistance to the electrical engineer and may lead a team of technicians. He/she supports the design, inspection, installation, testing,

troubleshooting and maintenance of electrical systems and equipment. He/she coordinates with customers, contractors, suppliers and consultants, to ensure that the products or work is performed to specification.

Example(s) of job not classified under this code:

- Electrical engineering technician, see 31131
- Signal systems technician (electrical), see 31131

Occupation 31003 Assistant electronics engineer

Assistant electronics engineer provides assistance to the electronics engineer and may lead a team of technicians. He/she supports the design, inspection, installation, testing, troubleshooting and maintenance of electronic systems and equipment. He/she coordinates with customers, contractors, suppliers and consultants, to ensure that the products or work is performed to specification.

Example(s) of job not classified under this code:

- Radar technician, see 31141
- Semi-conductor technician, see 31142
- Audio/Video equipment technician, see 31143

Occupation 31004 Assistant mechanical engineer

Assistant mechanical engineer provides assistance to the mechanical engineer and may lead a team of technicians. He/she supports the design, inspection, installation, troubleshooting and maintenance of mechanical systems and equipment. He/she coordinates with customers, contractors, suppliers and consultants, to ensure that the products or work is performed to specification.

Example(s) of job not classified under this code:

- Physics technician, see 31112
- Mechanical engineering technician, see 31151

Occupation 31005 Assistant chemical engineer

Assistant chemical engineer provides assistance to the chemical engineer and may lead a team of technicians. He/she supports the development of chemical production processes and also the design, inspection, installation, troubleshooting and maintenance of chemical plant and equipment. He/she maintains laboratory documentation and ensures that chemical equipment are being calibrated and maintained regularly. He/she coordinates with customers, contractors, suppliers and consultants, to ensure that the products or work is performed to specification.

Example(s) of job classified under this code:

- Assistant chemical engineer (petroleum)
- Assistant petrochemical engineer

Example(s) of job not classified under this code:

- Chemistry technician, see 31111
- Chemical engineering technician (excluding petroleum, natural gas and petrochemical), see 31161
- Chemical engineering technician (petroleum), see 31162
- Chemical engineering technician (petrochemical), see 31163

Occupation 31006 Assistant manufacturing engineer

Assistant manufacturing engineer provides assistance to the industrial and production engineer and may lead a team of technicians. He/she applies engineering principles and techniques to optimise the production processes in a manufacturing environment. He/she analyses manufacturing issues, troubleshoots process deviations and also participates in production and manufacturing system improvement projects. He/she coordinates with customers, contractors, suppliers and consultants, to ensure that the products or work is performed to specification.

Example(s) of job classified under this code:

- Assistant engineer (production)

Example(s) of job not classified under this code:

- Manufacturing engineering technician, see 31171
- Production engineering technician, see 31172

Occupation 31009 Assistant engineer n.e.c.

This group covers assistant engineer not elsewhere classified.

Example(s) of job classified under this code:

- Assistant biomedical engineer

MINOR GROUP 311 PHYSICAL AND ENGINEERING SCIENCE TECHNICIANS I

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3111 Chemical and Physical Science Technicians
- 3112 Civil Engineering Technicians

- 3113 Electrical Engineering Technicians
- 3114 Electronics Engineering Technicians
- 3115 Mechanical Engineering Technicians (Excluding Transport and Vehicle Engineering Technicians)
- 3116 Chemical Engineering Technicians
- 3117 Manufacturing Engineering Technicians
- 3118 Draughtspersons

Unit Group 3111 Chemical and Physical Science Technicians

Chemical and physical science technicians perform technical tasks to aid in research in chemistry, physics, geology, geophysics, meteorology and astronomy, and in the development of industrial, medical, military and other practical applications of research results.

Tasks include:

- collecting samples and preparing materials and equipment for experiments, tests and analyses
- carrying out routine laboratory tests and performing a variety of technical support functions to assist chemical and physical scientists in research, development, analysis and testing
- controlling the quality and quantity of laboratory supplies by testing samples and monitoring usage and preparing detailed estimates of quantities and costs of materials and labour required for projects, according to the specifications given
- setting up, operating, and maintaining laboratory instruments and equipment, monitoring experiments, making observations, and calculating and recording results
- preparing materials for experimentation such as freezing and slicing specimens and mixing chemicals
- collecting and testing earth and water samples, recording observations and analysing data in support of geologists or geophysicists

Occupation(s) in this Unit Group:

- 31111 Chemistry technician
- 31112 Physics technician
- 31119 Chemical/Physical science technician n.e.c.

Occupation 31111 Chemistry technician

Chemistry technician performs technical tasks, normally under the direction of a chemist, in connection with pure research into chemical phenomena or applied chemical research and development work. He/she assists with experiments, tests and analyses in the field of organic, inorganic, physical and analytical chemistry, for such purposes as investigating chemical

phenomena, determining composition and properties of substances, discovering and developing new chemical products, new uses for existing products or new methods of production, or controlling industrial processes. He/she may maintain laboratory and other equipment.

Example(s) of job classified under this code:

- Chemical laboratory tester
- Chemical process analyst

Example(s) of job not classified under this code:

- Assistant chemical engineer, see 31005
- Chemical engineering technician (excluding petroleum, natural gas and petrochemical), see 31161
- Petroleum refining technician, see 31162
- Chemical engineering technician (petrochemical), see 31163
- Food science technician, see 31164

Occupation 31112 Physics technician

Physics technician performs technical tasks, normally under the direction of a physicist, in connection with pure research into physical phenomena or applied physics research and development work. He/she assists with experiments, tests and analyses in the field of mechanics, heat, light, sound, electricity and magnetism, electronics, nuclear or other branches of physics to investigate the structure and properties of matter, transformation and propagation of energy, relationships between matter and energy and other physical phenomena or to develop industrial, medical, military or other practical applications. He/she may maintain laboratory and other equipment.

Example(s) of job classified under this code:

- Astronomy technician

Example(s) of job not classified under this code:

- Assistant mechanical engineer, see 31004

Occupation 31119 Chemical/Physical science technician n.e.c.

This group covers chemical/physical science technician not elsewhere classified.

Example(s) of job classified under this code:

- Geology technician
- Meteorological aide

Example(s) of job not classified under this code:

- Refining and smelting technician, see 31292

Unit Group 3112 Civil Engineering Technicians

Civil engineering technicians perform technical tasks in civil engineering research, design, construction, operation, maintenance and repair of buildings and other structures, such as water supply and wastewater treatment systems, bridges, roads, dams and airports.

Tasks include:

- performing or assisting with field and laboratory tests of soils and construction materials using various computer software packages including spreadsheets to provide administrative support
- providing technical assistance connected with the construction of buildings and other structures, and with surveys or the preparation of survey reports
- ensuring compliance with design specifications, relevant legislation and regulations, and maintenance of desired standards of materials and work
- applying technical knowledge of building and civil engineering principles and practices in order to identify and solve problems arising
- assisting with the preparation of detailed estimates of quantities and costs of materials and labour required for projects, according to the specifications given
- organising maintenance and repairs
- supervising other workers

Occupation(s) in this Unit Group:

- 31121 Civil engineering technician
- 31122 Building technician
- 31123 Land surveying technician
- 31124 Resident technical officer
- 31129 Civil engineering technician n.e.c.

Occupation 31121 Civil engineering technician

Civil engineering technician performs technical tasks, normally under the direction of a civil engineer or building architect to assist in planning, monitoring and execution of building and civil engineering projects. He/she assists in site investigations, inspections and tests on soil samples and building material, preparation of designs, specifications, tender bidding, work schedules, material and labour input.

Example(s) of job classified under this code:

- Geotechnical engineering technician
- Structural engineering technician

Example(s) of job not classified under this code:

- Assistant civil engineer, see 31001

Occupation 31122 Building technician

Building technician performs technical tasks under the direction of a building construction engineer contributory to the planning and execution of building projects. He/she specialises in erection, maintenance and repair of large industrial, commercial, public and residential buildings.

Example(s) of job classified under this code:

- Buildings compliance inspector
- Construction inspector

Example(s) of job not classified under this code:

- Assistant structural engineer, see 31001
- Building maintenance inspector, see 31719

Occupation 31123 Land surveying technician

Land surveying technician performs surveying and mapping duties, usually under the direction of an engineer, surveyor, cartographer, or photogrammetrist to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. He/she calculates mapmaking information and creates maps from source data, such as surveying notes, aerial photography, satellite data, or other maps to show topographical features, political boundaries, and other features and verifies accuracy and completeness of maps.

Example(s) of job classified under this code:

- Land mapping technician
- Topographic survey technician

Example(s) of job not classified under this code:

- Assistant civil engineer, see 31001
- Land survey draughtsman, see 31189
- Marine surveyor, see 31213
- Quantity surveying technician, see 31294

Occupation 31124 Resident technical officer

Resident technical officer supervises construction works in accordance to the project specifications, construction drawings and regulatory requirements. He/she inspects works to ensure that works are carried out in accordance to the Qualified Person (QP) instruction, keeps proper site inspection records and accurate records of site progress and checks drawings and specifications for discrepancies and highlight to QP and contractor, suggesting possible solutions to prevent delays. He/she also enforces quality control on site and monitors site safety and prepares daily site activities report.

Example(s) of job classified under this code:

- Clerk of works

Example(s) of job not classified under this code:

- Quantity surveying technician, see 31294

Occupation 31129 Civil engineering technician n.e.c.

This group covers civil engineering technician not elsewhere classified.

Example(s) of job classified under this code:

- Rail track maintenance inspector
- Rail track repair worker

Example(s) of job not classified under this code:

- Assistant civil engineer, see 31001

Unit Group 3113 Electrical Engineering Technicians

Electrical engineering technicians perform technical tasks to aid in electrical engineering research and in the design, manufacture, assembly, construction, operation, maintenance and repair of electrical equipment, facilities and distribution systems.

Tasks include:

- providing technical assistance in research and development of electrical equipment and facilities, or testing prototypes
- designing and preparing blueprints of electrical installations and circuitry according to the specifications given
- preparing detailed estimates of quantities and costs of materials and labour required for manufacture
- monitoring technical aspects of the manufacture, installation, utilisation, maintenance and repair of electrical systems and equipment to ensure satisfactory performance and compliance with specifications and regulations

- planning installation methods, checking completed installations for safety and controls or undertaking the initial running of the new electrical equipment or systems
- assembling, installing, testing, calibrating, modifying and repairing electrical equipment and installations to conform with regulations and safety requirements

Occupation(s) in this Unit Group:

- 31131 Electrical engineering technician
- 31132 Lift technician

Occupation 31131 Electrical engineering technician

Electrical engineering technician performs technical tasks, normally under the direction of an electrical engineer, contributory to design, development, construction, installation, maintenance and repair of electrical systems and equipment. He/she exercises technical supervision and control to ensure compliance with specifications and safety standards, and gives technical guidance to workers engaged in manufacture, installation, repair and maintenance of electrical equipment.

Example(s) of job classified under this code:

- Electrical installations technician
- Electrical testing technician
- Power transmission technician (electricity)
- Signal systems technician (electrical)

Example(s) of job not classified under this code:

- Assistant electrical engineer, see 31002
- Electronics engineering technician, see 31141
- Signal systems technician (electronic), see 31141
- Electrical draughtsperson, see 31182
- Electrical switchboard operator (power station), see 31310
- Aircraft electrician, see 74110
- Dynamo fitter, see 74121
- Electrical fitter, see 74121
- Electric power cableman (overhead), see 74131
- Electrical component assembler, see 82121
- Electrical products tester, see 82131

Occupation 31132 Lift technician

Lift technician performs technical tasks related to the installation, maintenance and repair of systems and equipment (e.g. elevators, escalators, hoists etc.) for vertical transportation of passengers and goods. He/she attends to breakdowns and troubleshoots escalators, lifts, etc. issues. He/she may also check the completed work to ensure compliance with specifications and safety standards.

Example(s) of job classified under this code:

- Lift maintenance master specialist
- Lift maintenance principal specialist

Example(s) of job not classified under this code:

- Assistant electrical engineer, see 31002
- Lift supervisor, see 74001
- Lift maintenance senior specialist, see 74122

Unit Group 3114 Electronics Engineering Technicians

Electronics engineering technicians perform technical tasks to aid in electronics research and in the design, manufacture, assembly, construction, operation, maintenance and repair of electronic equipment.

Tasks include:

- providing technical assistance in research and development of electronic equipment, or testing prototypes
- designing and preparing blueprints of electronic circuitry according to the specifications given
- preparing detailed estimates of quantities and costs of materials and labour required for the manufacture and installation of electronic equipment, according to the specifications given
- monitoring technical aspects of the manufacture, utilisation, maintenance and repair of electronic equipment to ensure satisfactory performance and ensure compliance with specifications and regulations
- assisting in the design, development, installation, operation and maintenance of electronic systems
- planning installation methods, checking completed installations for safety and controls or undertaking the initial running of the new electronic equipment or system
- conducting tests of electronic systems, collecting and analysing data, and assembling circuitry in support of electronics engineers

Occupation(s) in this Unit Group:

- 31141 Electronics engineering technician

- 31142 Semi-conductor technician
- 31143 Audio/Video equipment technician
- 31144 Instrumentation technician

Occupation 31141 Electronics engineering technician

Electronics engineering technician performs technical tasks normally under the direction of an electronics engineer, contributory to design, development, construction, installation, maintenance and repair of electronic devices and equipment. He/she may specialise in electronic devices and equipment such as radio, television and radar equipment, telecommunications installations and automatic control and guidance systems and is designated accordingly.

Example(s) of job classified under this code:

- Microelectronics (MEMS) technician
- Radar technician
- Signal systems technician (electronic)

Example(s) of job not classified under this code:

- Assistant electronics engineer, see 31003
- Electrical engineering technician, see 31131
- Signal systems technician (electrical), see 31131
- Electronics draughtsperson, see 31182
- Mechatronics technician, see 31291
- Telecommunications technician, see 35220
- Electronic industrial equipment fitter, see 74210
- Electronic prototype fitter, see 74210
- Electronic component assembler, see 82122

Occupation 31142 Semi-conductor technician

Semi-conductor technician performs some or all functions in the manufacture of electronic semi-conductors. He/she loads semi-conductor material into the furnace, saws formed ingots into segments, loads individual segments into the crystal growing chamber and monitors controls. He/she also locates the crystal axis in ingots using X-ray equipment, saws ingots into wafers and cleans, polishes, and loads wafers into a series of special purpose furnaces, chemical baths, and equipment used to form circuitry and change conductive properties.

Example(s) of job not classified under this code:

- Assistant electronics engineer, see 31003
- Electronic component assembler, see 82122

Occupation 31143 Audio/Video equipment technician

Audio/Video equipment technician performs technical tasks specialising in radio and television systems and equipment, normally under the direction of an electronics engineer, contributory to design, development, construction, installation, maintenance and repair of electronic devices and equipment.

Example(s) of job classified under this code:

- Radio and television technician

Example(s) of job not classified under this code:

- Assistant electronics engineer, see 31003
- Consumer audio/video equipment mechanic, see 74221

Occupation 31144 Instrumentation technician

Instrumentation technician assists instrumentation engineers in the development, testing, monitoring, and maintenance of control equipment, such as valves, relays, and regulators, which can be used to monitor and control processes.

Example(s) of job classified under this code:

- Control and instrumentation (C&I) technician

Example(s) of job not classified under this code:

- Assistant electronics engineer, see 31003

Unit Group 3115 Mechanical Engineering Technicians (Excluding Transport and Vehicle Engineering Technicians)

Mechanical engineering technicians (excluding transport and vehicle engineering technicians) perform technical tasks to aid in mechanical engineering research and in the design, manufacture, assembly, construction, operation, maintenance and repair of machines, components and mechanical equipment.

Tasks include:

- providing technical assistance in research on and development of machines and mechanical installations, facilities and components, or testing prototypes, excluding transport equipment
- designing and preparing layouts of machines and mechanical installations, facilities and components according to the specifications given

- preparing detailed estimates of quantities and costs of materials and labour required for manufacture and installation according to the specifications given
- monitoring technical aspects of manufacture, utilisation, maintenance and repair of machines and mechanical installations, facilities and components to ensure satisfactory performance and compliance with specifications and regulations
- assembling and installing new and modified mechanical assemblies, components, machine tools and controls, and hydraulic power systems
- conducting tests of mechanical systems, collecting and analysing data, and assembling and installing mechanical assemblies in support of mechanical engineers
- ensuring that mechanical engineering designs and finished work, excluding those related to transport equipment, are within specifications, regulations and contract provisions

Occupation(s) in this Unit Group:

- 31151 Mechanical engineering technician
- 31152 Air-conditioning/Refrigeration engineering technician
- 31153 Machining/Tooling technician

Occupation 31151 Mechanical engineering technician

Mechanical engineering technician performs technical tasks, normally under the direction of a mechanical engineer, contributory to design, development, manufacture, construction, installation, efficient operation, maintenance and repair of mechanically functioning plant and equipment. He/she exercises technical supervision and control and guidance to workers engaged in manufacture, installation, repair and maintenance of mechanically functioning plant and equipment and ensures compliance with specifications and safety standards.

Example(s) of job classified under this code:

- Gas turbine technician
- Marine mechanical engineering technician
- Mechanical equipment technician
- Optomechanical technician

Example(s) of job not classified under this code:

- Assistant mechanical engineer, see 31004
- Automotive engineering technician, see 31212
- Mechatronics technician, see 31291
- Agricultural machinery fitter, see 72390
- Industrial machinery mechanic, see 72390

- Machinery mechanic, see 72390

Occupation 31152 Air-conditioning/Refrigeration engineering technician

Air-conditioning/Refrigeration engineering technician performs technical tasks, normally under the direction of a heating, ventilation, and refrigeration engineer, contributory to design, development, manufacture, installation, maintenance and repair of systems and equipment for heating, ventilation, air-conditioning and refrigeration. He/she specialises in field systems and equipment for heating and air-conditioning in industrial, commercial, residential and public buildings, ice-making and cooling storage rooms.

Example(s) of job classified under this code:

- Heating, ventilation and air-conditioning (HVAC) systems technician

Example(s) of job not classified under this code:

- Air-conditioning/Refrigeration equipment mechanic, see 71271
- Air-conditioning/Refrigeration equipment installer, see 71272

Occupation 31153 Machining/Tooling technician

Machining/Tooling technician sets up and operates precision machines, carries out maintenance, services, and repairs of all process equipment, such as pumps, blowers and fans, lubricant systems, major machines, compressors, hydraulic systems, etc. He/she also designs and administers a range of computerised or mechanical machines to fabricate jigs, fixtures and precision machine parts and works closely with engineers and machine operators to make sure that the tools created are performing up to requirements. He/she adheres to strict precision guidelines and usually plays an important part in the planning and implementation of the manufacturing process of the tool.

Example(s) of job classified under this code:

- Machine building specialist
- Mould designer
- Semi-conductor tooling specialist
- Tool designer

Example(s) of job not classified under this code:

- Industrial machinery/tools engineer, see 21442
- Agricultural machinery fitter, see 72390
- Industrial machinery mechanic, see 72390
- Machinery mechanic, see 72390

Unit Group 3116 Chemical Engineering Technicians

Chemical engineering technicians perform technical tasks to aid in chemical engineering research and in the design, manufacture, construction, operations, maintenance and repair of chemical plants.

Tasks include:

- assisting in the research on and development of industrial chemical processes, plant and equipment, or testing prototypes
- designing and preparing layouts of chemical plants according to the specifications given
- preparing detailed estimates of quantities and costs of materials and labour required for manufacture and installation according to the specifications given
- monitoring technical aspects of the construction, installation, operation, maintenance and repair of chemical plants to ensure satisfactory performance and compliance with specifications and regulations
- conducting chemical and physical laboratory tests to assist scientists and engineers in making qualitative and quantitative analyses of solids, liquids, and gaseous materials

Occupation(s) in this Unit Group:

- 31161 Chemical engineering technician (excluding petroleum, natural gas and petrochemical)
- 31162 Chemical engineering technician (petroleum/natural gas)
- 31163 Chemical engineering technician (petrochemical)
- 31164 Food science technician

Occupation 31161 Chemical engineering technician (excluding petroleum, natural gas and petrochemical)

Chemical engineering technician (excluding petroleum, natural gas and petrochemical) performs technical tasks, normally under the direction of a chemical engineer, contributory to development of processes for the chemical or physical transformation of substances on a commercial scale. He/she provides technical support and service to design, construct, operate, maintain and repair chemical plant. He/she exercises technical supervision and control of chemical processing operations, gives technical guidance to workers engaged in constructing, installing, maintaining and repairing chemical processing plant and ensures compliance with specifications and safety standards.

Example(s) of job classified under this code:

- Chemical production quality technician
- Pharmaceutical plant testing technician

Example(s) of job not classified under this code:

- Assistant chemical engineer, see 31005

- Chemistry technician, see 31111
- Chemicals cooker, see 31331
- Alcohol distiller, see 81311

Occupation 31162 Chemical engineering technician (petroleum/natural gas)

Chemical engineering technician (petroleum/natural gas) performs technical tasks, normally under the direction of a chemical engineer (petroleum), contributory to development of processes for the production of fuels. He/she provides technical support and service to design, construct, operate, maintain and repair fuel production facility. He/she may specialise in refining of crude oil, production of fuel products such as petrol, biofuel and paraffin fuels and lubricating oils and greases.

Example(s) of job classified under this code:

- Biofuel processing technician
- Petroleum processing technician
- Petroleum refining technician

Example(s) of job not classified under this code:

- Assistant chemical engineer (petroleum), see 31005
- Chemistry technician, see 31111
- Petroleum and natural gas extraction technician, see 31292
- Petroleum refining blender, see 31341
- Caser (oil and gas wells), see 81130

Occupation 31163 Chemical engineering technician (petrochemical)

Chemical engineering technician (petrochemical) performs technical tasks, normally under the direction of a chemical engineer (petroleum), contributory to development of processes for manufacturing petrochemicals. He/she provides technical support and service to design, construct, operate, maintain and repair petrochemical plant. He/she specialises in operations of petrochemical plant, monitors process and safety, and conditions of petrochemical process equipment and facilities to maintain availability of equipment.

Example(s) of job not classified under this code:

- Assistant petrochemical engineer, see 31005
- Chemistry technician, see 31111

Occupation 31164 Food science technician

Food science technician works with food scientists or technologists to perform standardised qualitative and quantitative tests to determine physical or chemical properties of food or beverage products. He/she assists in research and development of production technology, quality control, packaging, processing, and use of foods.

Example(s) of job classified under this code:

- Brewery technician
- Food production technician
- Food technician

Example(s) of job not classified under this code:

- Food/Drink technologist, see 21454
- Chemistry technician, see 31111

Unit Group 3117 Manufacturing Engineering Technicians

Manufacturing engineering technicians perform technical tasks to aid in manufacturing engineering research, as well as in the construction, modification, continued performance and maintenance of equipment and machines in industrial plants. They also assist in the planning of manufacturing activities under the direction of a manufacturing engineer.

Tasks include:

- carrying out operational activities according to required work specification, quality and safety standards
- reading/studying technical product documents, manufacturing specifications etc.
- performing routine maintenance on processes/equipment/plant facilities
- identifying faults and troubleshooting production processes/machinery and equipment

Occupation(s) in this Unit Group:

- 31171 Manufacturing engineering technician
- 31172 Production engineering technician
- 31173 Process engineering technician
- 31174 Automation technician
- 31175 Quality assurance technician

Occupation 31171 Manufacturing engineering technician

Manufacturing engineering technician provides technical support and services in the development of production methods, facilities and systems, and the planning, estimating and scheduling of work. He/she develops tools, implements designs or integrates machinery, equipment or computer technologies for effective manufacturing processes and also sets up, tests and adjusts manufacturing machinery or equipment.

Example(s) of job classified under this code:

- Medical manufacturing specialist

Example(s) of job not classified under this code:

- Manufacturing engineer, see 21411
- Assistant manufacturing engineer, see 31006
- Assembly and quality check general foreman, see 82000

Occupation 31172 Production engineering technician

Production engineering technician performs technical tasks, normally under the direction of a production engineer, to plan production operations including set up of machines for production, troubleshooting and maintenance. He/she examines workings, drawings, manufacturing specifications and prototypes of proposed products and identifies fabrication, assembly and other operations required to produce the finished article and determines and prepares detailed schedules of appropriate sequences and timings of operations, taking into account production methods, materials and equipment to be used.

Example(s) of job classified under this code:

- Production planning technician

Example(s) of job not classified under this code:

- Production engineer, see 21412
- Assistant engineer (production), see 31006
- Process engineering technician, see 31173

Occupation 31173 Process engineering technician

Process engineering technician works closely with engineers to evaluate the existing processes and configure manufacturing systems to reduce cost, improve sustainability and develops best practices within the production process.

Example(s) of job classified under this code:

- Electronic process engineering technician

- Chemical process engineering technician

Example(s) of job not classified under this code:

- Process engineer, see 21415
- Production engineering technician, see 31172

Occupation 31174 Automation technician

Automation technician performs technical tasks, normally under the direction of an automation engineer in the development of applications and systems for the automation of the production process. He/she builds, tests, monitors and maintains the computer-controlled systems used in automated production systems. He/she writes detailed design specifications of automation machines, produces design drawings for fabrication and conducts design reviews. He/she also liaises with the production team to evaluate, troubleshoot and analyse assembly problems and provide solutions for improvements.

Example(s) of job classified under this code:

- Automation designer
- Computer numerical control (CNC) programmer
- Computer-aided design/Computer-aided manufacturing (CAD/CAM) programmer
- Robotics technician

Example(s) of job not classified under this code:

- Automation engineer, see 21413

Occupation 31175 Quality assurance technician

Quality assurance technician performs inspection on parts received from suppliers to ensure conformity to specifications. He/she performs process control by using inspection equipment for accurate inspection and manual checks and registers non-conformity as required. He/she also assists in analysing manufacturing and quality issues to make recommendations for out-of-control processes.

Example(s) of job classified under this code:

- Non-destructive testing (NDT) technician

Example(s) of job not classified under this code:

- Quality assurance engineer, see 21414
- Assembly and quality check general foreman, see 82000
- Electrical products quality checker, see 82131
- Mechanical products quality checker, see 82132

Unit Group 3118 Draughtspersons

Draughtspersons prepare technical drawings, maps and illustrations from sketches, measurements and other data and copy final drawings and paintings onto printing plates.

Tasks include:

- preparing and revising working drawings from sketches and specifications prepared by engineers and designers for the manufacture, installation and erection of machinery and equipment or for the construction, modification, maintenance and repair of buildings, dams, bridges, roads and other architectural and civil engineering projects
- operating computer-aided design (CAD) or computer-aided design and drafting (CADD) equipment to create, modify and generate hard-copy and digital representations of working drawings
- operating digitising table or similar equipment to transfer hard-copy representations of working drawings, maps and other curves to digital form
- preparing and revising illustrations for reference works, brochures and technical manuals dealing with the assembly, installation, operation, maintenance and repair of machinery and other equipment and goods
- copying drawings and paintings onto stone or metal plates for printing
- preparing wiring diagrams, circuit board assembly diagrams, and layout drawings used for manufacture, installation, and repair of electrical equipment in factories, power plants, and buildings
- creating detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information
- arranging for completed drawings to be reproduced for use as working drawings

Occupation(s) in this Unit Group:

- 31181 Mechanical draughtsperson
- 31182 Electrical/Electronics draughtsperson
- 31183 Civil/Structural engineering draughtsperson
- 31184 Architectural draughtsperson
- 31185 Marine draughtsperson
- 31189 Draughtsperson n.e.c.

Occupation 31181 Mechanical draughtsperson

Mechanical draughtsperson prepares engineering working drawings from a designer's sketches and specifications for manufacture of machines, mechanical devices and related products. He/she specialises in preparing working drawings and detailed specifications for the manufacture of jigs and tools, machinery, engines, motor vehicles, aeroplanes, gearing and suspension systems, pumps and other mechanical devices and related equipment.

Example(s) of job classified under this code:

- Aeronautical draughtsman
- Mechanical machinery drafter
- Rolling stock draughtsman

Occupation 31182 Electrical/Electronics draughtsperson

Electrical/Electronics draughtsperson prepares working drawings from a designer's sketches and specifications for manufacture and installation of electrical and electronic machinery and equipment. He/she specialises in preparing working drawings and detailed specifications for the manufacture, installation and wiring of electrical machinery and appliances, switchgear, electronic equipment and other electrical products.

Example(s) of job classified under this code:

- Circuit board draughtsman

Example(s) of job not classified under this code:

- Electrical circuit engineer, see 21511
- Electronics engineer, see 21521
- Electrical engineering technician, see 31131
- Electronics engineering technician, see 31141

Occupation 31183 Civil/Structural engineering draughtsperson

Civil/Structural engineering draughtsperson prepares working drawings from a designer's sketches and specifications for use in civil engineering projects. He/she specialises in preparing working drawings and detailed specifications for the construction of bridges, dams, tunnels, railways, roads, industrial and other large buildings, waste disposal and flood control systems and other civil engineering projects. He/she may specialise in preparing working drawings for construction of large steel-framed or reinforced concrete structures and be designated accordingly.

Example(s) of job classified under this code:

- Building information modelling (BIM) technician
- Plumbing design drafter
- Steel detailer

Occupation 31184 Architectural draughtsperson

Architectural draughtsperson specialises in preparing working drawings from architectural sketches and detailed specifications for the construction of buildings. He/she works with engineers regarding model accuracy, design, drafting standards and design documentation, produces structural drawings based on design drawings and verifies the consistence and makes adjustment to structural drawings, construction drawings and finishing works drawings.

Example(s) of job classified under this code:

- Landscape draughtsman

Example(s) of job not classified under this code:

- Building architect, see 21610

Occupation 31185 Marine draughtsperson

Marine draughtsperson prepares working plans, technical specifications, budgets and other technical drawings, from sketches or notes, for parts or for whole marine structures. He/she specialises in making drawings for structural features of ships, floating docks and other marine structures and equipment. He/she also follows up with shipyards, ship designers and consultants for the fitted drawings, class approval and documentation.

Example(s) of job classified under this code:

- Ship building draughtsman

Example(s) of job not classified under this code:

- Marine cartographer, see 21659
- Marine surveyor, see 31213

Occupation 31189 Draughtsperson n.e.c.

This group covers draughtsperson not elsewhere classified.

Example(s) of job classified under this code:

- Cartographical draughtsman
- Interior design draughtsman
- Land survey draughtsman
- Topographical draughtsman

Example(s) of job not classified under this code:

- Geology technician, see 31119

MINOR GROUP 312 PHYSICAL AND ENGINEERING SCIENCE TECHNICIANS II (Cont'd)

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3121 Transport and Vehicle Engineering Technicians
- 3129 Physical and Engineering Science Technicians Not Elsewhere Classified

Unit Group 3121 Transport and Vehicle Engineering Technicians

Transport and vehicle engineering technicians perform technical tasks to aid in mechanical engineering research and in the design, manufacture, assembly, construction, operation, maintenance and repair of transport equipment.

Tasks include:

- providing technical assistance in research on and development of machines and mechanical installations, facilities and components, or testing prototypes related to transport equipment
- designing and preparing layouts of transport equipment according to the specifications given
- preparing detailed estimates of quantities and costs of materials and labour required for manufacture and installation according to the specifications given
- monitoring technical aspects of manufacture, utilisation, maintenance and repair of transport equipment to ensure satisfactory performance and compliance with specifications and regulations
- developing and monitoring the implementation of safety standards and procedures for marine survey work in relation to ships' hulls, equipment and cargoes
- assembling and installing new and modified transport equipment's mechanical assemblies, components, machine tools and controls, and hydraulic power systems
- conducting tests of transport equipment, collecting and analysing data, and assembling and installing vehicle mechanical assemblies in support of transport and vehicle engineers
- ensuring that transport equipment mechanical engineering designs and finished work are within specifications, regulations and contract provisions

Occupation(s) in this Unit Group:

- 31211 Aeronautical engineering technician
- 31212 Automotive engineering technician
- 31213 Marine surveyor (ship/nautical)
- 31214 Rolling stock engineering technician

Occupation 31211 Aeronautical engineering technician

Aeronautical engineering technician performs technical tasks, normally under the direction of an aeronautical engineer, contributory to design, development, construction, maintenance

and repair of aircraft. He/she specialises in airframes, undercarriages, braking systems and other mechanical equipment for aircraft. He/she may specialise in a particular type of aircraft, such as passenger, cargo or military aircraft or helicopters.

Example(s) of job classified under this code:

- Aerospace component repair technician
- Avionics testing technician
- Aircraft engine inspector

Example(s) of job not classified under this code:

- Aeronautical mechanic, see 72320

Occupation 31212 Automotive engineering technician

Automotive engineering technician performs technical tasks, normally under the direction of an automotive engineer, contributory to design, development and manufacture of road vehicles. He/she specialises in bodies, suspension systems, brakes and other mechanical components for road vehicles and may specialise in a particular type of vehicle or component.

Example(s) of job classified under this code:

- Bus fleet engineering technician

Example(s) of job not classified under this code:

- Mechanical equipment technician, see 31151
- Automobile mechanic, see 72310

Occupation 31213 Marine surveyor (ship/nautical)

Marine surveyor (ship/nautical) inspects vessels intended for operations in maritime or open sea waters. He/she develops and monitors the implementation of safety standards and procedures for marine survey work in relation to ships' hulls, equipment and cargoes and also ensure that vessels and equipment follow the regulations laid down by the International Maritime Organisation (IMO). He/she may also act as third parties for the review of offshore facilities and construction projects.

Example(s) of job classified under this code:

- Hull surveyor

Example(s) of job not classified under this code:

- Marine cartographer, see 21659
- Land surveying technician, see 31123
- Marine draughtsperson, see 31185

- Bunker surveyor, see 31299

Occupation 31214 Rolling stock engineering technician

Rolling stock engineering technician performs preventive and corrective maintenance activities as well as modification and/or overhaul works on trains and its components. He/she conducts fault analyses, repairs of electronics, electrical and mechanical equipment of trains as well as performing routine vehicle inspections in accordance to maintenance procedures and instructions. He/she may also supervise the work of contractors and external stakeholders to ensure adherence to operating standards and safety standards.

Example(s) of job classified under this code:

- Railway vehicle engine technician

Unit Group 3129 Physical and Engineering Science Technicians Not Elsewhere Classified

This unit group covers physical and engineering science technicians not elsewhere classified.

Tasks include:

- aiding in the identification of potential hazards and introducing safety procedures and devices
- modifying and testing equipment and devices used in the prevention, control, and remediation of environmental pollution, site remediation and land reclamation
- providing technical assistance to aid in research on and developing processes to determine the properties of metals and new alloys
- monitoring technical, regulatory and safety aspects of the construction, installation, operation, maintenance and repair of mineral ore, oil and natural gas exploration, extraction, transport and storage installations and mineral processing plants
- providing technical assistance in geological and topographical surveys, and in the design and layout of oil, natural gas and mineral ore extraction and transportation systems, and processing and refining plants for minerals and metals
- assisting scientists in the use of electrical, sonic, or nuclear measuring instruments in both laboratory and production activities to obtain data indicating potential sources of metallic ore, gas or petroleum
- making required text and image corrections to ensure that proper format, appearance, and layout of text and images is set before the full print run for printed materials

Occupation(s) in this Unit Group:

- 31291 Mechatronics technician
- 31292 Metallurgical technician
- 31293 Precision optics technician

- 31294 Quantity surveying technician
- 31295 Airport maintenance technician
- 31299 Other physical/engineering science technician n.e.c.

Occupation 31291 Mechatronics technician

Mechatronics technician collaborates with engineers in the development of mechatronic devices and applications through a combination of mechanical engineering, electronic engineering, and computer engineering. He/she builds, tests, installs, and calibrates mechatronics and solves technical problems.

Example(s) of job not classified under this code:

- Electronics engineering technician, see 31141
- Mechanical engineering technician, see 31151

Occupation 31292 Metallurgical technician

Metallurgical technician performs technical tasks, normally under the direction of metallurgists or petroleum and natural gas engineers, contributory to the extraction, storage, development and transportation of metals, metal alloys, petroleum and natural gas. He/she sets up and carries out tests and analyses, takes readings, performs calculations, adjusts instruments, records observations and otherwise assists in research to develop new or improved extractive and processing methods for metals, metal alloys, petroleum and natural gas deposits. He/she assists in technical supervision of extractive and metal-making and treatment processes to ensure compliance with specifications.

Example(s) of job classified under this code:

- Foundry technician
- Mud logger technician
- Ore technologist
- Petroleum and natural gas extraction technician
- Refining and smelting technician

Example(s) of job not classified under this code:

- Petroleum and natural gas engineer, see 21460
- Geology technician, see 31119
- Petroleum refining technician, see 31162

Occupation 31293 Precision optics technician

Precision optics technician performs optical processes in the manufacture of precision lenses and other optic elements. He/she reads and interprets lens specifications from blue prints and schematics, draws work orders, and selects premixed compounds according to formula. He/she also sets up, operates and maintains polishing equipment and performs manual and Computer Numerical Control (CNC) assisted grinding and polishing precision sphere lenses.

Example(s) of job classified under this code:

- Optics manufacturing technician

Example(s) of job not classified under this code:

- Glass lens moulder, see 73150
- Lens grinding machine operator, see 73150

Occupation 31294 Quantity surveying technician

Quantity surveying technician works under the supervision of a quantity surveyor and uses architects' drawings to work out costings for building projects, and monitors site work to estimate costs of the project at different stages so that progressive payment can be made to building contractors.

Example(s) of job classified under this code:

- Construction estimator technician

Example(s) of job not classified under this code:

- Quantity surveyor, see 21494
- Engineering surveyor, see 21659
- Cadastral surveyor, see 21651
- Land surveying technician, see 31123
- Resident technical officer, see 31124

Occupation 31295 Airport maintenance technician

Airport maintenance technician maintains equipment necessary for ensuring the functionality of the airport, for example, visual aids, airport electrical systems, luggage systems, security systems, etc.

Example(s) of job classified under this code:

- Airport maintenance technical officer

Occupation 31299 Other physical/engineering science technician n.e.c.

This group covers other physical/engineering science technician not elsewhere classified.

Example(s) of job classified under this code:

- Biomedical engineering technician
- Bunker surveyor
- Electronic pre-press technician
- Forensic science technician

Example(s) of job not classified under this code:

- Biology laboratory technician, see 31411

MINOR GROUP 313 PROCESS CONTROL TECHNICIANS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3131 Power Generating Plant Operators
- 3132 Incinerator and Water Treatment Plant and Related Machine Operators
- 3133 Chemical Processing Plant Controllers
- 3134 Petroleum and Natural Gas Refining Plant Operators
- 3135 Metal Production Process Controllers
- 3139 Process Control Technicians Not Elsewhere Classified

Unit Group 3131 Power Generating Plant Operators

Power generating plant operators operate, monitor and maintain switchboards and related equipment in electrical control centres which control the production and distribution of electrical or other power in transmission networks. The equipment operated include reactors, turbines, generators and other auxiliary equipment in electrical power-generating stations.

Tasks include:

- operating, monitoring and inspecting various types of energy-generating power plants
- operating and controlling power-generating systems and equipment including boilers, turbines, generators, condensers and reactors in hydro, thermal, coal, oil, natural gas and nuclear power plants to generate and distribute electrical power
- controlling start-up and shut-down of power plant equipment, controlling switching operations, regulating water levels and communicating with systems operators to regulate and coordinate transmission loads, frequency and line voltages

- taking readings from charts, meters and gauges at established intervals, troubleshooting and performing corrective action as necessary
- completing and maintaining station records, logs and reports, and communicating with other plant personnel to assess equipment operating status
- cleaning and maintaining equipment such as generators, boilers, turbines, pumps and compressors in order to prevent equipment failure or deterioration

Notes:

Operators of single process plant and machines, or of machinery that does not involve automated control of multiple processes, are not included in Minor Group 313 'Process Control Technicians'. Such occupations are mainly classified in Major Group 8 'Plant and Machine Operators and Assemblers'.

Occupation(s) in this Unit Group:

- 31310 Power generating plant operator

Occupation 31310 Power generating plant operator

Power generating plant operator operates, monitors and maintains switchboards and related equipment in electrical control centres which control the production and distribution of electrical or other power in transmission networks. The equipment operated include reactors, turbines, generators and other auxiliary equipment in electrical power-generating stations.

Example(s) of job classified under this code:

- Electrical switchboard operator (power station)
- Electricity generating turbine operator
- Power reactor operator
- Power station generator switchboard operator

Example(s) of job not classified under this code:

- Power transmission technician (electricity), see 31131

Unit Group 3132 Incinerator and Water Treatment Plant and Related Machine Operators

Incinerator and water treatment plant and related machine operators monitor and operate computerised control systems and related equipment in solid and liquid waste treatment plants to regulate the treatment and disposal of sewage and wastes, and in water filtration and treatment plants to regulate the treatment and distribution of water.

Tasks include:

- operating and monitoring computerised control systems, machinery and related equipment in wastewater treatment, sewage treatment, and liquid waste plants to regulate flow, treatment and disposal of sewage and wastes, and in water filtration and treatment plants to regulate the

treatment and distribution of water for human consumption and for later disposal into natural water systems

- controlling the operation of multiple-hearth incinerator furnaces and related equipment to burn sludge and solid waste in waste treatment plants
- inspecting equipment and monitoring operating conditions, meters, filters, chlorinators and gauges in central control rooms to determine load requirements, to verify that flows, pressures and temperatures are within specification, and to detect malfunctions
- monitoring and adjusting controls of auxiliary equipment such as exhaust emissions, scrubbers and incinerator heat recovery units
- collecting and testing water and sewage samples for chemical and bacterial content, using test equipment and colour analysis standards
- analysing test results to make adjustments to plant equipment and systems to disinfect and deodorise water and other liquids
- performing security and safety checks in plant and on grounds
- completing and maintaining plant logs and reports

Notes:

Operators of single process plant and machines, or of machinery that does not involve automated control of multiple processes, are not included in Minor Group 313 'Process Control Technicians'. Such occupations are mainly classified in Major Group 8 'Plant and Machine Operators and Assemblers'.

Occupation(s) in this Unit Group:

- 31321 Stationary engine operator
- 31322 Compressor operator
- 31323 Pumping station operator
- 31324 Water treatment machine operator (waterworks)
- 31325 Refrigeration system operator
- 31329 Incinerator/Water treatment plant and related machine operator n.e.c.

Occupation 31321 Stationary engine operator

Stationary engine operator operates and monitors various types of stationary engines and related mechanical equipment. He/she checks and adjusts controls, observes gauges and meters which indicate the engine's performance and operating conditions, such as temperature and oil pressure, and makes further adjustments if necessary.

Occupation 31322 Compressor operator

Compressor operator operates and monitors steam, gas, electric motor, or internal combustion-engine driven compressors. He/she starts the power unit and builds up required pressure, manipulates controls or sets the automatic regulator to maintain a supply of air to equipment, observes pressure, temperature and other gauges and makes further adjustments to control as necessary. He/she cleans and oils equipment, tightens loose parts and performs other servicing tasks to keep the compressor in good running order.

Example(s) of job classified under this code:

- Air-compressor operator
- Gas-compressor operator

Occupation 31323 Pumping station operator

Pumping station operator operates and monitors pumping and siphoning equipment to transfer liquids, gases, semi-liquids and powdered substances from one location to another. He/she opens and sets valves, operates turbine-and motor-driven pumps, reads and interprets flow-meters and pressure and level gauges, regulates equipment according to needs or instructions and makes repairs and adjustments. He/she maintains logs concerning quantities pumped, utilisation of equipment and other matters. He/she may operate hydroelectric equipment to generate power for operating water-pumping equipment.

Example(s) of job classified under this code:

- Pumphouse man

Occupation 31324 Water treatment machine operator (waterworks)

Water treatment machine operator (waterworks) operates and monitor treatment plant equipment to purify water for human consumption and industrial use. He/she controls the flow of raw water into plant by starting and regulating operation of electric motors, pumps and valves, adds specified amounts of chemicals to disinfect, deodorise and clarify water, or adjusts automatic devices which admit chemicals in controlled dosages. He/she starts agitators to mix ingredients and filters water through filtering material. He/she pumps purified water into water mains, monitors control panel meters and gauges to determine rate of flow and other factors.

Example(s) of job classified under this code:

- Water works purifying plant operator

Occupation 31325 Refrigeration system operator

Refrigeration system operator operates and monitors refrigeration system which provides cooling medium for industrial processes, preserving foods, cooling buildings or for other

purposes. He/she starts and stops electric motors, pumps, compressors, coolers or other equipment related to refrigeration system, as required. He/she observes thermometers, pressure gauges and other instruments relating to performance of engines and operating conditions in the plant.

Example(s) of job classified under this code:

- Cooling plant operator
- Freezer operator

Occupation 31329 Incinerator/Water treatment plant and related machine operator n.e.c.

This group covers incinerator/water treatment plant and related machine operator not elsewhere classified.

Example(s) of job classified under this code:

- Desilting basin operator
- Lubricator (excluding ship's engines)
- Refuse disposal furnaceman
- Reservoir keeper
- Sewage plant operator

Unit Group 3133 Chemical Processing Plant Controllers

Chemical processing plant controllers operate and monitor chemical plants and related multi-function process control machinery, and adjust and maintain processing units and equipment which distil, filter, separate, heat or refine chemicals.

Tasks include:

- operating electronic or computerised control panels from a central control room to monitor and optimise physical and chemical processes for several processing units
- adjusting equipment, valves, pumps, controls and process equipment
- controlling the preparation, measuring and feeding of raw materials and processing agents such as catalysts and filtering media into plant
- controlling process start-up and shut-down, troubleshooting and monitoring outside process equipment
- verifying equipment for malfunctions, carrying out routine operating tests and arranging for maintenance
- analysing sample products, performing tests, recording data and writing production logs

Notes:

Operators of single process plant and machines, or of machinery that does not involve automated control of multiple processes, are not included in Minor Group 313 'Process Control Technicians'. Such occupations are mainly classified in Major Group 8 'Plant and Machine Operators and Assemblers'.

Occupation(s) in this Unit Group:

- 31331 Chemical processing/products plant controller
- 31332 Pharmaceutical products machine controller

Occupation 31331 Chemical processing/products plant controller

Chemical processing/products plant controller operates and monitors chemical (excluding pharmaceutical) plants and related multi-function process control machinery, and adjusts and maintains processing units and equipment which distil, filter, separate, heat or refine chemicals.

Example(s) of job classified under this code:

- Blending machine operator (chemical and related processes)
- Chemicals cooker
- Extractor operator (chemicals and related materials)
- Kiln operator (chemical and related processes)

Example(s) of job not classified under this code:

- Chemical production quality technician, see 31161
- Pharmaceutical products machine controller, see 31332

Occupation 31332 Pharmaceutical products machine controller

Pharmaceutical products machine controller operates and monitors pharmaceutical plants and related multi-function process control machinery, and adjusts and maintains processing units and equipment which distil, filter, separate, heat or refine pharmaceutical products.

Example(s) of job classified under this code:

- Coating machine operator (tablets and pills)
- Granulator machine operator
- Tableting machine operator

Example(s) of job not classified under this code:

- Blending machine operator (chemical and related processes), see 31331

Unit Group 3134 Petroleum and Natural Gas Refining Plant Operators

Petroleum and natural gas refining plant operators operate and monitor plants and adjust and maintain processing units and equipment which refine, distil and treat petroleum, petroleum-based products and by-products, or natural gas.

Tasks include:

- operating electronic or computerised control panels from a central control room to monitor and optimise physical and chemical processes for several processing units
- adjusting equipment, valves, pumps, controls and process equipment
- controlling process start-up and shut-down, troubleshooting and monitoring outside process equipment
- verifying equipment for malfunctions, testing well pipes for leaks and fractures and arranging for maintenance
- analysing sample products, performing tests, recording data and writing production logs

Notes:

Operators of single process plant and machines, or of machinery that does not involve automated control of multiple processes, are not included in Minor Group 313 'Process Control Technicians'. Such occupations are mainly classified in Major Group 8 'Plant and Machine Operators and Assemblers'.

Occupation(s) in this Unit Group:

- 31341 Petroleum/Natural gas refining plant operator
- 31342 Cylinder filler/tester (compressed/liquefied gases)

Occupation 31341 Petroleum/Natural gas refining plant operator

Petroleum/Natural gas refining plant operator operates and monitors plants, and adjusts and maintains processing units and equipment which refine, distil and treat petroleum, petroleum-based products and by-products, or natural gas.

Example(s) of job classified under this code:

- Asphalt blender
- Petroleum desulphurisation treater
- Petroleum refining blender

Example(s) of job not classified under this code:

- Chemical engineering technician (petroleum/natural gas), see 31162

Occupation 31342 Cylinder filler/tester (compressed/liquefied gases)

Cylinder filler/tester (compressed/liquefied gases) tends pumps or other equipment to fill cylinders or other containers with liquefied or compressed gases. He/she connects lines from filling point to cylinders, adjusts valves and observes gauges to fill cylinders to prescribed pressure or weight. He/she tests for leaks in cylinders, records weight or pressure cylinder number and date filled. He/she may also check the purity of gases by simple chemical tests.

Example(s) of job classified under this code:

- Acetylene filler
- Oxygen filler

Unit Group 3135 Metal Production Process Controllers

Metal production process controllers operate and monitor multi-function process control machinery and equipment to control the processing of metal converting and refining furnaces, metal-rolling mills, metal heat-treating or metal-extrusion plant.

Tasks include:

- coordinating and monitoring the operation of a particular aspect of metal processing production through control panels, computer terminals or other control systems, usually from a central control room
- operating multi-function central process control machinery to grind, separate, filter, melt, roast, treat, refine or otherwise process metals
- observing computer printouts, video monitors and gauges to verify specified processing conditions and to make necessary adjustments
- coordinating and supervising production crew such as machine and process operators, assistants and helpers
- starting up and shutting down the production system in cases of emergency or as required by schedule
- providing and organising training for members of production crews
- maintaining shift logs of production and other data and preparing production and other reports

Notes:

Operators of single process plant and machines, or of machinery that does not involve automated control of multiple processes, are not included in Minor Group 313 ‘Process Control Technicians’. Such occupations are mainly classified in Major Group 8 ‘Plant and Machine Operators and Assemblers’.

Occupation(s) in this Unit Group:

- 31350 Metal production process controller

Occupation 31350 Metal production process controller

Metal production process controller operates and monitors multi-function process control machinery and equipment to control the processing of metal converting and refining furnaces, metal-rolling mills, metal heat-treating or metal-extrusion plant.

Unit Group 3139 Process Control Technicians Not Elsewhere Classified

This unit group covers process control technicians not elsewhere classified.

Notes:

Operators of single process plant and machines, or of machinery that does not involve automated control of multiple processes, are not included in Minor Group 313 'Process Control Technicians'. Such occupations are mainly classified in Major Group 8 'Plant and Machine Operators and Assemblers'.

Occupation(s) in this Unit Group:

- 31391 Remote crane operator
- 31392 Automated assembly line/Industrial robot operator
- 31399 Other process control technician n.e.c.

Occupation 31391 Remote crane operator

Remote crane operator controls multiple types of equipment for cargo movement remotely through a control centre/system. He/she inspects the equipment and work site prior to equipment set-up.

Example(s) of job classified under this code:

- Remote bridge crane operator (port)

Occupation 31392 Automated assembly line/Industrial robot operator

Automated assembly line/Industrial robot operator monitors and operates automated or semi-automated assembling lines or industrial robots to perform various manufacturing activities such as lifting, welding and assembling. He/she ensures that the assembly line or industrial robots are working correctly and in sync with other processes.

Example(s) of job classified under this code:

- Automated assembly line operator
- Industrial robot operator

Example(s) of job not classified under this code:

- Bottle washing machine operator, see 81830

- Manufacturing labourer, see 93209

Occupation 31399 Other process control technician n.e.c.

This group covers other process control technician not elsewhere classified.

Example(s) of job classified under this code:

- Paper coating machine operator
- Paper pulp bleacher operator
- Paper varnishing machine operator

Example(s) of job not classified under this code:

- Paper/Paperboard products machine operator, see 81430

MINOR GROUP 314 LIFE SCIENCE TECHNICIANS AND RELATED ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3141 Life Science Technicians (Excluding Medical)
- 3142 Agronomy, Horticultural and Farming Technicians

Unit Group 3141 Life Science Technicians (Excluding Medical)

Life science technicians (excluding medical) provide technical support to life science professionals undertaking research, analysis and testing of living organisms, and development and application of products and processes resulting from research in areas such as agriculture, natural resource management, environmental protection, plant and animal biology, microbiology and cell and molecular biology.

Tasks include:

- assisting in designing, setting up and conducting experiments
- setting up, calibrating, operating and maintaining laboratory instruments and equipment
- collecting and preparing specimens and samples, chemical solutions and slides and growing cultures for use in experiments
- performing routine field and laboratory tests
- monitoring experiments to ensure adherence to correct laboratory quality control procedures and health and safety guidelines
- making observations of tests, and analysing, calculating, recording and reporting test results using appropriate scientific methods

- preserving, classifying and cataloguing specimens and samples
- keeping detailed logs of work performed
- using computers to develop models and analyse data
- using complex and high-powered equipment to perform work
- participating in the research, development and manufacture of products and processes
- ordering and stocking laboratory supplies
- maintaining relevant databases

Occupation(s) in this Unit Group:

- 31411 Biological technician
- 31412 Clinical research coordinator
- 31419 Life science technician (excluding medical) n.e.c.

Occupation 31411 Biological technician

Biological technician provides technical assistance in researching and analysing the relationship between living organisms and their environment. He/she sets up laboratory instruments and equipment, collects and analyses data for experiments and examines organic substances such as bodily fluids, drugs, plants and food. He/she also compiles reports and maintains laboratory stock.

Example(s) of job classified under this code:

- Bacteriology technician
- Biology laboratory technician
- Microbiology technician
- Tissue culture technician (non-plant)

Example(s) of job not classified under this code:

- Forensic science technician, see 31299
- Plant tissue culture technician, see 31422

Occupation 31412 Clinical research coordinator

Clinical research coordinator plans, directs, or coordinates clinical research projects. He/she assists to schedule and perform research-related procedures and follow-ups to clinical studies, in compliance with protocols, guidelines and other regulatory and ethical requirements, liaises between clinical trial sponsors and investigators and coordinates study-related finances and logistics. He/she enters and validates study data, extracts relevant information from medical records, performs counselling to patients and families and also handles administration work.

Example(s) of job classified under this code:

- Clinical trial coordinator

Example(s) of job not classified under this code:

- Clinical research professional, see 21347

Occupation 31419 Life science technician (excluding medical) n.e.c.

This group covers life science technician (excluding medical) not elsewhere classified.

Example(s) of job classified under this code:

- Botanical technician
- Pharmacology technician

Example(s) of job not classified under this code:

- Farm technician (horticulture), see 31421
- Pharmacy technician, see 32130

Unit Group 3142 Agronomy, Horticultural and Farming Technicians

Agronomy, horticultural and farming technicians perform tests and experiments, and provide technical and scientific support to horticultural scientists, as well as agricultural scientists, farmers and farm managers.

Tasks include:

- preparing materials and equipment for experiments, tests and analyses
- collecting and preparing specimens such as soils, plant or animal cells, tissues or parts or animal organs for experiments, tests and analyses
- assisting with and performing experiments, tests and analyses and applying methods and techniques such as microscopy, histochemistry, chromatography, electrophoresis and spectroscopy
- identifying pathogenic micro-organisms and insects, parasites, fungi and weeds harmful to crops and livestock and assisting in devising methods of control
- analysing produce to set and maintain standards of quality
- conducting or supervising operational programmes such as fish hatchery, greenhouse and livestock production programmes
- analysing samples of seeds for quality, purity and germination rating
- collecting data and estimating quantities and costs of materials and labour required for projects
- organising maintenance and repairs of research equipment

- assessing, designing and implementing of processes and systems on the application of water to a green field, nursery or landscape

Occupation(s) in this Unit Group:

- 31421 Horticultural technician
- 31422 Plant tissue culture technician
- 31423 Farming technician (animal production)

Occupation 31421 Horticultural technician

Horticultural technician provides technical support in the preparation of soil specimens, and helps to identify pathogenic micro-organisms and insects, parasites, fungi and weeds harmful to crops. He/she conducts tests and experiments to improve yield and quality of crops or to increase the resistance of plants to disease or insects, assists in devising methods of control against attacks on crops, and conducts or supervises production programmes. He/she nurtures plants and operates equipment and machinery to facilitate daily work. He/she may also transport and set up greenery for clients at various locations.

Example(s) of job classified under this code:

- Farm technician (horticulture)
- Hydroponics technician
- Irrigation specialist
- Silvicultural technician

Example(s) of job not classified under this code:

- Horticulturist, see 21321
- Botanical technician, see 31419
- Horticultural worker, see 61133

Occupation 31422 Plant tissue culture technician

Plant tissue culture technician provides technical support in the initiation of explants from mother plants, transfer of existing plant tissue cultures, selection of appropriate media for optimal plant culture growth, micropropagation, and also implements sterile techniques with minimal contamination.

Example(s) of job not classified under this code:

- Tissue culture technician (non-plant), see 31411

Occupation 31423 Farming technician (animal production)

Farming technician (animal production) assists agricultural scientists by providing technical support in the preparation of specimens such as animal cells, tissues or parts or animal organs and the conduct of experiments, tests and analysis. He/she assists in devising preventive controls against outbreak of diseases on livestock, and conducts or supervises operational programmes such as fish hatchery and livestock production programmes.

Example(s) of job classified under this code:

- Aquaculture technician
- Artificial breeding technician (livestock and fisheries)
- Artificial insemination technician

Example(s) of job not classified under this code:

- Aquaculturist, see 21322
- Agriculturist, see 21323
- Veterinary technician, see 32400

MINOR GROUP 315 SHIP AND AIRCRAFT CONTROLLERS AND TECHNICIANS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3151 Ship Engineering Officers
- 3152 Ships' Deck Officers and Pilots
- 3154 Air Traffic Controllers
- 3156 Sea Traffic Controllers
- 3157 Transport Operations Supervisors
- 3159 Transport Controllers and Related Workers Not Elsewhere Classified

Unit Group 3151 Ship Engineering Officers

Ship engineering officers control and participate in the operation, maintenance and repair of mechanical, electrical and electronic equipment and machinery on board ship.

Tasks include:

- controlling and participating in the operation, maintenance and repair of mechanical, electrical and electronic equipment and machinery on board ship
- ordering fuel and other engine-room department stores and maintaining record of operations
- performing technical supervision of the installation, maintenance and repair of ship's machinery and equipment to ensure compliance with specifications and regulations

- inspecting and conducting maintenance and emergency repairs to engines, machinery and auxiliary equipment
- standing engine room watch, monitoring and noting performance of engines, machinery and auxiliary equipment
- supervising other workers

Occupation(s) in this Unit Group:

- 31510 Marine engineering officer

Occupation 31510 Marine engineering officer

Marine engineering officer controls, supervises and participates in the operation, performance, maintenance and repair of mechanical, electrical and electronic equipment and machinery on board ship.

Example(s) of job classified under this code:

- Third foreign-going marine engineering officer
- Fourth marine engineering officer
- Fifth marine engineering officer
- Marine engineer officer

Example(s) of job not classified under this code:

- Marine engineer (shore-based), see 21473
- Chief engineer (ship), see 21711
- Marine superintendent engineer, see 21712

Unit Group 3152 Ships' Deck Officers and Pilots

Ships' deck officers and pilots navigate ships and similar vessels and perform related functions on shore.

Tasks include:

- navigating ship or similar vessel at sea or on inland waterways
- controlling and participating in deck and bridge-watch activities
- navigating vessels into and out of ports and through channels, straits and other waters where special knowledge is required
- ensuring safe loading and unloading of cargo and observance of safety regulations and procedures by crew and passengers

- performing technical supervision of maintenance and repair of ship to ensure compliance with specifications and regulations
- applying knowledge of principles and practices relating to ship's operation and navigation in order to identify and solve problems arising in the course of their work
- ordering ship's stores and recruiting crew as required and maintaining record of operations
- transmitting and receiving routine and emergency information with shore stations and other ships
- supervising other workers

Occupation(s) in this Unit Group:

- 31521 Ship's deck navigating officer
- 31522 Harbour pilot
- 31529 Ship's deck officer/pilot n.e.c.

Occupation 31521 Ship's deck navigating officer

Ship's deck navigating officer plans, supervises and coordinates deck and bridge-watch activities on seagoing or inland waterways vessel. He/she assists the ship master in navigation of vessel in accordance with his/her instructions through determining position and course of vessel by use of charts, compasses, radar and other navigational aids.

Example(s) of job classified under this code:

- Second foreign-going deck officer
- Third foreign-going deck officer
- Fourth foreign-going deck officer
- Ship's second officer

Occupation 31522 Harbour pilot

Harbour pilot provides pilotage and berthing services, and ensures the safe and expedient movement of ships entering and departing the port. He/she complies with port regulations and emergency response plans.

Example(s) of job classified under this code:

- Ship pilot
- Special limit deck officer, chief mate

Notes:

Harbour pilot must pass a colour vision test and holds a Harbour Pilot Licence issued by the relevant authority of the Flag State.

Occupation 31529 Ship's deck officer/pilot n.e.c.

This group covers ship's deck officer/pilot not elsewhere classified.

Example(s) of job classified under this code:

- Ferryboat skipper
- Hovercraft pilot
- Jet boat operator
- Yacht skipper

Example(s) of job not classified under this code:

- Ship captain, see 21713
- Port limit helmsman, see 83501
- Deckhand, see 83502

Unit Group 3154 Air Traffic Controllers

Air traffic controllers direct aircraft movements in airspace and on the ground, using radio, radar and lighting systems and provide information relevant to the operation of aircraft.

Tasks include:

- directing and controlling aircraft approaching and leaving airport and their movement on the ground
- directing and controlling aircraft operating in designated airspace sector
- examining and approving flight plans
- informing flight crew and operations staff about weather conditions, operational facilities, flight plans and air traffic
- applying knowledge of principles and practices of air traffic control in order to identify and solve problems arising in the course of their work
- initiating and organising emergency, search and rescue services and procedures
- directing activities of all aircraft and service vehicles on or near airport runways
- maintaining radio and telephone contact with adjacent control towers, terminal control units and other control centres and coordinating the movement of aircraft into adjoining areas

Occupation(s) in this Unit Group:

- 31540 Air traffic controller

Occupation 31540 Air traffic controller

Air traffic controller directs aircraft movements in airspace and on the ground, using radio, radar and lighting systems and provides information relevant to the operation of aircraft.

Example(s) of job classified under this code:

- Air traffic control officer
- Air traffic coordinator
- Air traffic service operator

Example(s) of job not classified under this code:

- Flight engineer, see 21724

Unit Group 3156 Sea Traffic Controllers

Sea traffic controllers command, navigate and direct ships, using radio and radar. They provide information and directions to ensure safe and efficient movement and operation of ships.

Tasks include:

- providing comprehensive information on the movement of ships to on-shore and ships' personnel
- commanding and navigating ships
- directing the movements of ships
- supervising waterborne transport operations
- coordinating and monitoring of en-route operations
- intervening to alert ships at sea traffic separation zone

Occupation(s) in this Unit Group:

- 31560 Sea traffic controller

Occupation 31560 Sea traffic controller

Sea traffic controller commands, navigates and directs ships, using radio and radar. He/she provides information and directions to ensure safe and efficient movement and operation of ships.

Example(s) of job classified under this code:

- Sea traffic control officer
- Sea traffic coordinator
- Sea traffic service operator

Unit Group 3157 Transport Operations Supervisors

Transport operations supervisors supervise land, air and waterborne transport service operations.

Tasks include:

- determining sequence of operations and use of equipment
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- coordinating the work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 31571 Air transport service supervisor
- 31572 Train service supervisor
- 31573 Road transport supervisor
- 31574 Port/Shipping operations supervisor
- 31579 Transport operations supervisor n.e.c.

Occupation 31571 Air transport service supervisor

Air transport service supervisor supervises airport and airline operations and activities such as baggage, ramp, cargo, load control, in-flight catering, and passenger/customer services. He/she maintains the lines of communication with the various stakeholders during flight disruptions. He/she enforces passenger safety and security standards and investigates the root causes of safety and security breaches.

Example(s) of job classified under this code:

- Traffic supervisor (airline)

Example(s) of job not classified under this code:

- Chief steward, see 51111

Occupation 31572 Train service supervisor

Train service supervisor supervises train service and station operations and activities. He/she supervises the station staff and executes crew (re)deployment plans to maintain train service standards and reliability, as well as safety standards of train operations. He/she conducts regular inspections of station premises and facilities to ensure station equipment are

operational. He/she manages service and repair requirements for station equipment and facilities, and carries out access control for maintenance teams and/or service providers to perform maintenance work on rail systems and/or station facilities.

Example(s) of job classified under this code:

- MRT service supervisor
- Train superintendent

Example(s) of job not classified under this code:

- Rail station service assistant, see 51121

Occupation 31573 Road transport supervisor

Road transport supervisor supervises road transport (e.g. bus) and depot operations and activities. He/she oversees day-to-day depot and interchange operations and manages the deport and interchange's facilities and security. He/she monitors and regulates the road transport services and (re)deployment of drivers to ensure service reliability.

Example(s) of job classified under this code:

- Bus station master
- Traffic inspector (passenger road transport service)
- Transport service inspector (buses and trams)

Occupation 31574 Port/Shipping operations supervisor

Port/Shipping operations supervisor supervises port and shipping operations and activities. He/she oversees the planning and sequencing of the loading and unloading of cargo from ships, the placement of cargo in the yard and the lashing operations. He/she monitors a ship schedule and its status before arrival at the ports, the delivery and re-delivery notices for ships and arranges for hire payments.

Example(s) of job classified under this code:

- Port and shipping operations planner
- Post-fixture and planner supervisor
- Post-fixture executive
- Ship's cargo superintendent

Occupation 31579 Transport operations supervisor n.e.c.

This group covers transport operations supervisor not elsewhere classified.

Example(s) of job classified under this code:

- Barge superintendent
- Car park supervisor
- Line haul operations executive
- Railway transport service inspector

Unit Group 3159 Transport Controllers and Related Workers Not Elsewhere Classified

This unit group covers transport controllers and related workers not elsewhere classified.

Occupation(s) in this Unit Group:

- 31591 Port master/Dockmaster
- 31592 Port captain
- 31593 Flight operations officer
- 31594 Air cargo officer
- 31595 Load control officer (aircraft)
- 31596 Train operations officer
- 31597 Road transport operations officer
- 31599 Other transport controller and related worker n.e.c.

Occupation 31591 Port master/Dockmaster

Port master/Dockmaster supervises and coordinates activities of workers engaged in docking vessels for cleaning, painting and repair. He/she analyses vessel's blueprints and specifications to determine size, shape and number of keel and bilge blocks required to support vessel. He/she oversees flooding operations and removal of vessel from dock.

Example(s) of job classified under this code:

- Dry dock port master
- Graving dockmaster

Occupation 31592 Port captain

Port captain commands or supervises operations of ships and water vessels, such as tugboats and ferryboats. He/she ensures vessel comply with legal requirements, and conducts investigation and analysis for any non-conformances, accidents, hazardous occurrences.

Occupation 31593 Flight operations officer

Flight operations officer coordinates flight planning and assists in monitoring of aircraft performance, movements, operating conditions and en-route operations. He/she gives landing and departure authorisation and instruction, examines weather data and determines changes to the flight routes. He/she advises pilots-in-command accordingly in all matters affecting diversions in addition to liaising and coordinating with relevant parties to minimise flight delays and passenger inconvenience.

Example(s) of job classified under this code:

- Air operation officer
- Flight operations controller

Occupation 31594 Air cargo officer

Air cargo officer receives and despatches cargo and mail through aircraft while ensuring that they meet safety, security and airworthiness standards. He/she performs stock control and housekeeping operations to ensure that shipments are arranged, received, handled and stored properly according to Standard Operating Procedures (SOP) and handling requirements.

Example(s) of job classified under this code:

- Air freight officer

Occupation 31595 Load control officer (aircraft)

Load control officer (aircraft) ensures that structural weights of an aircraft are within safety parameters and performs weight, balance, and centre of gravity calculations for departing flights. He/she gives instructions to loading clerks on placement of cargo and mail on aircraft in addition to completing load sheet and presenting to flight commander.

Example(s) of job classified under this code:

- Load-sheet officer (aircraft)

Occupation 31596 Train operations officer

Train operations officer operates trains and provides passenger transport services in a safe manner while respecting all relevant safety, operational and communication regulations.

Example(s) of job classified under this code:

- MRT operations officer (traffic)
- MRT traffic officer

Example(s) of job not classified under this code:

- Rail station service assistant, see 51121

Occupation 31597 Road transport operations officer

Road transport operations officer performs day-to-day operations to support road transport services such as bus service to serve passengers. He/she monitors and regulates road transport arrival and departure timings, (re)deploys drivers to operate service routes, and conducts road transport checks to ensure service readiness. He/she responds to emergencies and restores road transport service, as well as assists in the investigation and documentation of incidents and/or accidents. He/she also takes on administrative duties in data compilation, performing traffic and crowd control and daily security checks, and providing support to respond to incidents and accidents.

Example(s) of job classified under this code:

- Bus operations control centre controller
- Bus terminal operations technician

Occupation 31599 Other transport controller and related worker n.e.c.

This group covers other transport controller and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Ferry superintendent
- Line haul operations officer
- Wharf superintendent

MINOR GROUP 316 PREMISES AND PARKS OFFICERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3160 Premises and Parks Officers

Unit Group 3160 Premises and Parks Officers

Premises and parks officers implement the park management work plan and oversee the programmes and activities in a park.

Tasks include:

- upkeeping of an estate or park and responsible for the proper management and maintenance of trees, shrubs and premises facilities
- maintaining high level of health and safety standards in the park/estate

- liaising with the residents' committees to create events and programmes to promote the use of parks
- providing information about the parks and their activities and programmes to park users
- performing administrative tasks such as record keeping of maintenance works schedule and report
- enforcing rules and regulations in parks and premises

Occupation(s) in this Unit Group:

- 31601 Premises/Facilities maintenance officer
- 31602 Landscape operations officer
- 31603 Parks officer

Occupation 31601 Premises/Facilities maintenance officer

Premises/Facilities maintenance officer directs the operations of facilities that provide recreational services such as gardens, zoos and parks etc. He/she plans and organises the daily operations of the related staff and facilities and ensures the organisation follows the latest developments in its field.

Example(s) of job classified under this code:

- Estate management executive
- Property management executive

Example(s) of job not classified under this code:

- Parks officer, see 31603

Occupation 31602 Landscape operations officer

Landscape operations officer provides advice and guidance to customers and installs, manages and maintains indoor or outdoor green spaces to customer requirements. He/she reads and interprets site plans and drawings, and assists his/her supervisor to ensure that the landscaping project timelines are met. He/she also upkeeps an estate or park and oversees the proper management and maintenance of trees, shrubs and premises facilities.

Example(s) of job classified under this code:

- Interiorscaper

Example(s) of job not classified under this code:

- Landscape worker, see 92142

Occupation 31603 Parks officer

Parks officer implements the park management work plan and is familiar with park operations and equipment. He/she may also organise events to promote the use of parks and provides information about the parks and their activities and programmes to park users. He/she also ensures that park features are under the park support programme and the park is safe for park users.

Example(s) of job not classified under this code:

- Estate management executive, see 31601

MINOR GROUP 317 BUILDING, QUALITY AND SAFETY INSPECTORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3171 Building and Fire Inspectors
- 3172 Quality and Safety Inspectors

Unit Group 3171 Building and Fire Inspectors

Building and fire inspectors enforce the rules and regulations relating to fire prevention and other hazards and occupational safety.

Tasks include:

- ensuring that buildings and other structures comply with approved building plans, grading and zoning laws and fire regulations
- advising on and inspecting fire-prevention systems
- investigating fire sites to determine cause of fire
- inspecting industrial and other enterprises on the grounds of occupational safety

Occupation(s) in this Unit Group:

- 31711 Fire and safety inspector
- 31719 Building/Fire inspector n.e.c.

Occupation 31711 Fire and safety inspector

Fire and safety inspector enforces the rules and regulations relating to fire prevention and other hazards and occupational safety. He/she detects and eliminates or reduces fire hazards in industrial plants and other establishments by using instruments and conducting special tests to determine the conditions.

Example(s) of job classified under this code:

- Fire and safety officer
- Fire prevention specialist

Example(s) of job not classified under this code:

- Industrial safety engineer, see 21493
- Building permit licensing officer, see 33593
- Aircraft accident fire-fighter, see 54110

Occupation 31719 Building/Fire inspector n.e.c.

This group covers building/fire inspector not elsewhere classified.

Example(s) of job classified under this code:

- Building maintenance inspector
- Housing maintenance inspector
- Playground safety inspector

Example(s) of job not classified under this code:

- Buildings compliance inspector, see 31122

Unit Group 3172 Quality and Safety Inspectors

Quality and safety inspectors enforce the rules and regulations relating to safety of production processes, as well as quality standards relating to goods and services produced, used or sold. They may also administer and regulate quality standards manufacturing specifications.

Tasks include:

- performing road worthiness inspection on vehicles to ensure compliance with regulatory standards
- conducting checks, maintenance and housekeeping of inspection lanes
- ensuring safety of production processes, as well as of goods produced, used or sold
- ensuring compliance with workplace occupational safety rules and regulations
- ensuring compliance with the quality standards and specifications of manufacturers

Occupation(s) in this Unit Group:

- 31720 Safety inspector (vehicles/processes/products)

Occupation 31720 Safety inspector (vehicles/processes/products)

Safety inspector (vehicles/processes/products) enforces the rules and regulations relating to safety of production processes, as well as quality standards relating to goods and services produced, used or sold. He/she may also administer and regulate quality standards manufacturing specifications.

Example(s) of job classified under this code:

- Factory inspector (occupational safety)
- Machinery inspector (government)
- Quality control supervisor (food services)
- Vehicle inspector (private sector)

SUB-MAJOR GROUP 32 HEALTH ASSOCIATE PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 321 MEDICAL AND PHARMACEUTICAL TECHNICIANS
- 322 NURSING ASSOCIATE PROFESSIONALS
- 323 TRADITIONAL AND COMPLEMENTARY MEDICINE ASSOCIATE PROFESSIONALS
- 324 VETERINARY TECHNICIANS AND ASSISTANTS
- 325 OTHER HEALTH ASSOCIATE PROFESSIONALS

MINOR GROUP 321 MEDICAL AND PHARMACEUTICAL TECHNICIANS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3211 Medical Imaging and Therapeutic Equipment Technicians
- 3212 Medical and Pathology Laboratory Technicians
- 3213 Pharmacy Technicians
- 3214 Medical and Dental Prosthetic Technicians

Unit Group 3211 Medical Imaging and Therapeutic Equipment Technicians

Medical imaging and therapeutic equipment technicians test and operate radiographic, ultrasound and other medical imaging equipment to produce images of body structures for the diagnosis and treatment of injury, disease and other impairments.

Tasks include:

- explaining procedures, observing and positioning patients to ensure safety and comfort during examination, scan, or treatment
- using radiation safety measures and protection devices to comply with and to ensure safety of patients and health care workers
- position imaging or treatment equipment and adjusting controls to set exposure time and distancing according to specification
- operating or overseeing operation of radiologic, ultrasound and magnetic imaging equipment to produce images of the body for diagnostic purposes
- reviewing and evaluating developed X-rays, video tape, or computer generated information to determine if images are satisfactory for diagnostic purposes and recording results of procedures
- monitoring video display of area being scanned and adjusting density or contrast to improve picture quality
- monitoring patients' conditions and reactions, reporting abnormal signs to medical practitioner

Occupation(s) in this Unit Group:

- 32111 Sonographer
- 32112 Medical X-ray technician
- 32119 Medical imaging/therapeutic equipment technician n.e.c.

Occupation 32111 Sonographer

Sonographer produces ultrasonic recordings of internal organs for use by physicians. He/she operates or oversees operation of ultrasound and produces images of the body for diagnostic purposes while monitoring patients' conditions and reactions for abnormal signs.

Example(s) of job classified under this code:

- Cardiac ultrasound technician
- Ultrasonographer

Occupation 32112 Medical X-ray technician

Medical X-ray technician operates X-ray equipment to make radiographs for medical diagnostic purposes or give therapeutic treatment. He/she prepares patient for exposure to X-rays and, when necessary, fixes lead plates to protect parts of body not to be exposed to X-rays in addition to manipulating controls of machine to regulate the time and intensity of exposure.

Example(s) of job classified under this code:

- Radiography technician (medical)
- X-ray machine operator (medical)

Example(s) of job not classified under this code:

- Radiologist, see 22142
- Diagnostic radiographer, see 22693
- Radiation therapist, see 22694

Occupation 32119 Medical imaging/therapeutic equipment technician n.e.c.

This group covers medical imaging/therapeutic equipment technician not elsewhere classified.

Example(s) of job classified under this code:

- Audiometric technician
- Electroencephalograph technician

Example(s) of job not classified under this code:

- Clinical physiologist, see 21344
- Mammographer, see 22693
- Radiation therapist, see 22694

Unit Group 3212 Medical and Pathology Laboratory Technicians

Medical and pathology laboratory technicians perform clinical tests on specimens of bodily fluids and tissues in order to obtain information about the health of a patient or cause of death.

Tasks include:

- conducting chemical analysis of body fluids, including blood, urine, and spinal fluid to determine presence of normal and abnormal components
- operating, calibrating and maintaining equipment used in quantitative and qualitative analysis, such as spectrophotometers, calorimeters, flame photometers, and computer-controlled analysers
- entering data from analysis of laboratory tests and clinical results into records-keeping systems and reporting results to medical practitioners and other health professionals
- analysing samples of biological material for chemical content or reaction
- setting up, cleaning, and maintaining laboratory equipment
- analysing laboratory findings to check the accuracy of the results
- establishing and monitoring programmes to ensure the accuracy of laboratory results and developing, standardising, evaluating, and modifying procedures, techniques and tests used in the analysis of specimens
- obtaining specimens, cultivating, isolating and identifying micro-organisms for analysis

- examining cells stained with dye to locate abnormalities
- inoculating fertilised eggs, broths, or other bacteriological media with organisms

Occupation(s) in this Unit Group:

- 32120 Medical/Pathology laboratory technician

Occupation 32120 Medical/Pathology laboratory technician

Medical/Pathology laboratory technician performs clinical tests on specimens of bodily fluids and tissues in order to obtain information about the health of a patient or cause of death. He/she conducts analysis of human tissues and body fluids, including blood, bone marrow, urine, amniotic fluid, etc. He/she operates, calibrates and maintains simple instruments used in quantitative and qualitative analysis such as glucometer, Haemoglobin A1c (HBA1c) meter, bilirunometer, full blood count (FBC) analyser and light microscope.

Example(s) of job classified under this code:

- Blood bank technician
- Cytotechnician
- Haematology technician
- Medical laboratory technologist
- Serology technician

Example(s) of job not classified under this code:

- Medical pathologist, see 22146

Unit Group 3213 Pharmacy Technicians

Pharmacy technicians perform a variety of tasks associated with dispensing medicinal products under the guidance of a pharmacist or other health professional.

Tasks include:

- preparing medications and other pharmaceutical compounds under the guidance of pharmacists
- dispensing medicines and drugs to clients and giving written and oral instructions on their use, as prescribed by medical doctors, veterinarians or other authorised workers
- receiving prescriptions or refill requests from health professionals and verifying that information is complete and accurate
- maintaining proper storage and security conditions for drugs
- filling and labelling containers with prescribed medications
- assisting clients by answering questions, locating items or referring them to a pharmacist for medication information

- pricing and filing prescriptions that have been filled and establish and maintaining patient records including lists of medications taken by individual patients
- ordering, labelling and counting stock of medications, chemicals and supplies and entering inventory data into records-keeping systems
- cleaning and preparing equipment and containers used to prepare and dispense medicines and pharmaceutical compounds

Occupation(s) in this Unit Group:

- 32130 Pharmacy technician

Occupation 32130 Pharmacy technician

Pharmacy technician performs a variety of tasks associated with dispensing medicinal products under the guidance of a pharmacist or other health professional. He/she performs drug compounding by processing orders and preparing sterile and non-sterile products, and managing inventory and maintaining proper records and functioning of facilities.

Example(s) of job classified under this code:

- Pharmaceutical technician
- Pharmacy dispensing technician

Example(s) of job not classified under this code:

- Pharmacist (patient care), see 22621
- Pharmacology technician, see 31419

Unit Group 3214 Medical and Dental Prosthetic Technicians

Medical and dental prosthetic technicians design, fit, service and repair medical and dental devices and appliances following prescriptions or instructions established by a health professional. They may service a wide range of support instruments to correct physical medical or dental problems such as neck braces, orthopaedic splints, artificial limbs, hearing aids, arch supports, dentures and dental crowns and bridges.

Tasks include:

- examining, interviewing and measuring patients in order to determine their appliance needs and to identify factors that could affect appliance fit
- conferring with medical and dental practitioners in order to formulate specifications and prescriptions for devices and appliances
- interpreting prescriptions or specifications to determine the type of product or device to be fabricated and the materials and tools that will be required

- making or receiving casts or impressions of patients' torsos, limbs, mouths or teeth for use as fabrication patterns
- designing and making orthotic and prosthetic devices using materials such as thermoplastic and thermosetting materials, metal alloys and leather, and hand and power tools
- fitting appliances and devices onto patients, testing and evaluating them, and making adjustments for proper fit, function, and comfort
- repairing, modifying and maintaining medical and dental prosthetic and supportive devices, according to specifications
- bending, forming and shaping fabric or material so that it conforms to prescribed contours needed to fabricate structural components
- fabricating full and partial dentures and constructing mouth guards, crowns, metal clasps, inlays, bridgework and other aids
- instructing patients in the use and care of prosthetic or orthotic devices

Notes:

Occupations included in this unit group normally require some medical, dental and anatomical and engineering knowledge obtained through formal training. Technicians who construct and repair precision medical and surgical instruments are not included here.

Occupation(s) in this Unit Group:

- 32141 Prosthetist/Orthotist
- 32142 Prosthetic/Orthotic technician
- 32143 Dental technician

Occupation 32141 Prosthetist/Orthotist

Prosthetist/Orthotist assesses patients and designs and fits suitable support instruments for individuals who have impairments, deficiencies or weaknesses due to injury, pathology or congenital malformation. He/she educates patients on how to use and maintain support instruments properly.

Example(s) of job classified under this code:

- Artificial limb fitter
- Orthotic fitter

Occupation 32142 Prosthetic/Orthotic technician

Prosthetic/Orthotic technician designs, creates, fits and repairs support instruments, such as braces, joints, arch supports, and other surgical and medical appliances. He/she determines the most suitable material and tools to use to build the prosthetic limb or medical appliance

with the aid of digital imaging techniques, computer-aided design (CAD) and computer-aided manufacturing (CAM).

Example(s) of job classified under this code:

- Artificial limb maker
- Bracer maker (orthopaedic)
- Surgical appliance maker

Example(s) of job not classified under this code:

- Medical device assembler, see 73113

Occupation 32143 Dental technician

Dental technician makes and repairs dentures and other dental aid. He/she makes plaster casts for upper and lower jaws from wax impressions taken by dentist and fabricates inlays, crown and bridge-work and other prostheses aids according to specifications.

Example(s) of job classified under this code:

- Dental prosthesis maker and repairer
- Denturist

Example(s) of job not classified under this code:

- Oral health therapist, see 32510
- Dental assistant, see 53203

MINOR GROUP 322 NURSING ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3220 Nursing Associate Professionals

Unit Group 3220 Nursing Associate Professionals

Nursing associate professionals provide basic nursing and personal care for people in need of such care due to effects of ageing, illness, injury or other physical or mental impairment. They generally work under the supervision of, and in support of, implementation of health care, treatment and referrals plans established by medical, nursing and other health professionals.

Tasks include:

- providing nursing and personal care and treatment and health advice to patients according to care plans established by health professionals

- administering medications and other treatments to patients, monitoring patients' condition and responses to treatment, and referring patients and their families to a health professional for specialised care as needed
- cleaning wounds and applying surgical dressings
- updating information on patients' condition and treatments received in record-keeping systems
- assisting in planning and managing the care of individual patients
- assisting in giving first-aid treatment in emergencies

Occupation(s) in this Unit Group:

- 32200 Enrolled/Assistant nurse (excluding registered nurse)

Occupation 32200 Enrolled/Assistant nurse (excluding registered nurse)

Enrolled/Assistant nurse (excluding registered nurse) provides basic nursing and personal care for people in need of such care due to effects of ageing, illness, injury or other physical or mental impairment. He/she generally works under the supervision of, and in support of, implementation of health care, treatment and referrals plans established by medical, nursing and other health professionals.

Example(s) of job classified under this code:

- Community nurse

Example(s) of job not classified under this code:

- Nurse midwife, see 22200
- Registered nurse, see 22200
- Veterinary nurse, see 32400
- Healthcare assistant, see 53201
- Home care aide, see 53202

Notes:

Enrolled/Assistant nurse is required to be registered/enrolled with the Singapore Nursing Board (SNB) or its equivalent and possesses a valid Practising Certificate (PC) in order to practise nursing/midwifery in Singapore.

MINOR GROUP 323 TRADITIONAL AND COMPLEMENTARY MEDICINE ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3230 Traditional and Complementary Medicine Associate Professionals

Unit Group 3230 Traditional and Complementary Medicine Associate Professionals

Traditional and complementary medicine associate professionals prevent and treat human physical and mental illnesses, disorders and injuries using herbal and other therapies based on theories, beliefs and experiences originating in specific cultures.

Tasks include:

- examining and questioning patients to determine the nature of the illness or complaint and recommended course of treatment
- treating sickness and injuries using herbs, medicinal plants, insects, animal extracts and other traditional techniques to cure and heal by stimulating nature
- advising the individuals and the community on proper diet and behaviour to preserve or improve health and well-being
- applying pressure to parts of the body using a variety of traditional techniques
- referring patients to, and exchanging information with other health and community workers

Notes:

Occupations in traditional and complementary medicine for which competent performance requires an extensive understanding of the benefits and applications of traditional and complementary therapies, developed as the result of extended formal study of these techniques as well as human anatomy and elements of modern medicine, are classified in Unit Group 2230 'Traditional and Complementary Medicine Professionals'. Those occupations whose practice requires a less extensive understanding, based on relatively short periods of formal or informal education and training, or informally through the traditions and practices of the communities where they originated, are included in Unit Group 3230 'Traditional and Complementary Medicine Associate Professionals'. Practitioners working in the singular application of approaches to herbal medicines, spiritual therapies or manual therapeutic techniques are excluded from Unit Group 2230.

Faith healers who treat human ailments through spiritual therapies, without using herbal therapies or other medicaments or physical treatments, are included in Unit Group 3991 'Religious Associate Professionals'.

Occupations that provide therapy using traditional forms of massage and the application of pressure, such as acupressure and shiatsu therapists, are classified in Unit Group 3255 'Physiotherapy Technicians and Related Associate Professionals'.

Occupation(s) in this Unit Group:

- 32300 Traditional and complementary medicine associate professional

Occupation 32300 Traditional and complementary medicine associate professional

Traditional and complementary medicine associate professional prevents and treats human physical and mental illnesses, disorders and injuries using herbal and other therapies based on theories, beliefs and experiences originating in specific cultures.

Example(s) of job classified under this code:

- Bonesetter
- Herbalist
- Homeopath
- Naturopath

Example(s) of job not classified under this code:

- Traditional Chinese Medicine (TCM) practitioner, see 22301
- Traditional Chinese Medicine (TCM) acupuncturist, see 22302
- Faith healer, see 39910

MINOR GROUP 324 VETERINARY TECHNICIANS AND ASSISTANTS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3240 Veterinary Technicians and Assistants

Unit Group 3240 Veterinary Technicians and Assistants

Veterinary technicians and assistants carry out advisory, diagnostic, preventive and curative veterinary tasks, more limited in scope and complexity than those carried out by, and with the guidance of veterinarians. They care for animals under treatment and in temporary residence at veterinary facilities, perform routine procedures and assist veterinarians to perform procedures and operations.

Tasks include:

- advising communities and individuals on the treatment of animals and their diseases and injuries
- conducting examinations of animals to make diagnoses or refer more difficult cases to veterinarians when needed
- treating ill or injured animals, especially for common diseases and disorders
- cleaning and sterilising examination tables and instruments and preparing materials used in the examination and treatment of animals
- carrying out technical tasks connected with artificial insemination of animals
- getting animals ready for examination or treatment and restraining or holding them during treatment
- assisting veterinarians to administer anaesthetics and oxygen during treatment
- placing animals in cages for recovery from operations and monitoring their condition

- producing radiographs, collecting samples, and performing other laboratory tests to assist in diagnosis of animal health problems
- performing routine animal dental procedures and assisting veterinarians with animal dentistry

Occupation(s) in this Unit Group:

- 32400 Veterinary technician/assistant

Occupation 32400 Veterinary technician/assistant

Veterinary technician/assistant carries out advisory, diagnostic, preventive and curative veterinary tasks, more limited in scope and complexity than those carried out by, and with the guidance of veterinarians. He/she cares for animals under treatment and in temporary residence at veterinary facilities, performs routine procedures and assists veterinarians to perform procedures and operations.

Example(s) of job classified under this code:

- Veterinary nurse
- Veterinary vaccinator

Example(s) of job not classified under this code:

- Registered nurse, see 22200
- Farming technician (animal production), see 31423
- Assistant nurse, see 32200

MINOR GROUP 325 OTHER HEALTH ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3251 Oral Health Therapists
- 3253 Community Health Workers
- 3254 Opticians
- 3255 Physiotherapy Technicians and Related Associate Professionals
- 3257 Environmental and Occupational Health Inspectors
- 3259 Health Associate Professionals Not Elsewhere Classified

Unit Group 3251 Oral Health Therapists

Oral health therapists provide basic dental care services for the prevention and treatment of diseases and disorders of the teeth and mouth, as per care plans and procedures established by a dentist or other oral health professional.

Tasks include:

- advising communities and individuals on dental hygiene, diet and other preventive measures to reduce potential risks to oral health
- conducting visual and physical examinations of patients' mouths, teeth and related structures to assess oral health status
- identifying cases of patients with poor oral health or oral disease requiring referral to a dentist or other health professional
- assisting dentists during complex dental procedures
- providing fluoride treatments, cleaning and removing deposits from teeth, preparing cavities and placing fillings, administering local anaesthesia and performing other types of basic or routine clinical dental procedures
- preparing, cleaning and sterilising dental instruments, equipment and materials used in the examination and treatment of patients
- getting patients ready for examination or treatment including explaining procedures and correct positioning taking impressions of the mouth and dental radiographs to support diagnosis and fitting of dental prosthetics

Occupation(s) in this Unit Group:

- 32510 Oral health therapist

Occupation 32510 Oral health therapist

Oral health therapist provides basic dental care services for the prevention and treatment of diseases and disorders of the teeth and mouth, as per care plans and procedures established by a dentist or other oral health professional. He/she provides oral health assessment, diagnosis, treatment, management and preventive services. He/she collects data and administers comprehensive advice on oral hygiene and the care of the mouth, according to patients' needs under the supervision of dental practitioners.

Example(s) of job classified under this code:

- Dental hygienist
- Dental therapist
- Oral hygienist

Example(s) of job not classified under this code:

- General dentist, see 22611
- Dental prosthesis maker and repairer, see 32143
- Dental technician, see 32143
- Dental aide, see 53203

Notes:

Oral health therapist is required to register with the Singapore Dental Council (SDC) or its equivalent in order to practise in Singapore.

Unit Group 3253 Community Health Workers

Community health workers provide health education, referral and follow-up, case management, basic preventive health care and home visiting services to specific communities. They provide support and assistance to individuals and families in navigating the health and social services system.

Tasks include:

- providing information to families and communities on a range of health issues including nutrition, hygiene, infant and child care, immunisations, family planning, risk factors and prevention of common infectious diseases, poisoning prevention, first aid for treatment of simple and common ailments, substance abuse, domestic violence, and other topics
- visiting families in their homes to provide information on the health, social and other services available and support them in gaining access to these services
- visiting families who do not usually access medical establishments to monitor on a regular basis certain conditions such as progress with pregnancy, child growth and development, and environmental sanitation
- distributing to household's medical supplies for the prevention and treatment of endemic diseases such as malaria, pneumonia and diarrhoeal diseases, and instructing family and community members in the use of these products
- conducting outreach efforts to groups who do not usually access medical establishments with information and basic medical supplies for prevention and management of certain health conditions for which they are most at risk, such as HIV/AIDS and other communicable diseases
- collecting data from households and communities who do not usually access medical establishments for purposes of patient monitoring and referral and reporting to meet health regulations

Notes:

Occupations included in this unit group normally require formal or informal training and supervision recognised by the health and social services authorities. Providers of routine personal care and traditional medicine practitioners are not included here.

Occupation(s) in this Unit Group:

- 32530 Community health worker

Occupation 32530 Community health worker

Community health worker provides health education, referral and follow-up, case management, basic preventive health care and home visiting services to specific communities.

He/she provides support and assistance to individuals and families in navigating the health and social services system.

Example(s) of job classified under this code:

- Community health aide

Example(s) of job not classified under this code:

- Home care aide, see 53202

Unit Group 3254 Opticians

Opticians design, fit and dispense optical lenses based on a prescription from an ophthalmologist or optometrist for the correction of reduced visual acuity. They service corrective eyeglasses, contact lenses, low-vision aids and other optical devices.

Tasks include:

- examining and taking facial and eye measurements of clients for fitting of eyeglasses and other optical devices
- providing advice to clients with selection and maintenance of eyeglasses and frames, types of contact lenses and other optical devices for performance, safety, comfort and lifestyle
- interpreting optical prescriptions and preparing work order for optical laboratory for grinding and mounting of lenses in frames, preparation of contact lenses and other required work
- verifying exactness of finished optical appliances and devices to the original prescription and fit of clients

Occupation(s) in this Unit Group:

- 32540 Optician

Occupation 32540 Optician

Optician designs, fits and dispenses optical lenses based on a prescription from an ophthalmologist or optometrist for the correction of reduced visual acuity. He/she services corrective eyeglasses, contact lenses, low-vision aids and other optical devices.

Example(s) of job classified under this code:

- Contact lens optician
- Dispensing optician
- Refracting optician

Example(s) of job not classified under this code:

- Ophthalmologist, see 22145

- Optometrist, see 22670

Notes:

Optician is required to register with the Optometrists and Opticians Board (OOB) or its equivalent in order to practise in Singapore.

Unit Group 3255 Physiotherapy Technicians and Related Associate Professionals

Physiotherapy technicians and related associate professionals provide physical therapeutic treatments to patients in circumstances where functional movement is threatened by injury, disease or impairment. Therapies are usually provided according to rehabilitative plans established by a physiotherapist or other health professional.

Tasks include:

- administering manual treatments such as massage therapy or pressure point therapy
- administering electrical modality treatments, ultrasound and other physical therapies using specialised techniques and equipment
- instructing, motivating, safeguarding and assisting patients as they practise physical exercises, relaxation techniques and functional activities
- conferring with physiotherapists or other health care providers to evaluate patient information for planning, modifying, and coordinating treatment
- monitoring and recording patients' progress during treatment, including measuring their range-of-joint motion and vital signs
- fitting patients for orthopaedic braces, prostheses and other physical supportive devices such as crutches, and instructing patients in the use of such devices

Occupation(s) in this Unit Group:

- 32551 Massage therapist
- 32559 Physiotherapy technician and related associate professional n.e.c.

Occupation 32551 Massage therapist

Massage therapist administers manual treatments such as massage therapy or pressure point therapy to patients in circumstances where functional movement is threatened by injury, disease or impairment. He/she monitors and records patients' progress during treatment, including measuring their range-of-joint motion and vital signs.

Example(s) of job classified under this code:

- Masseur (medical)
- Sports masseur

Example(s) of job not classified under this code:

- Physical therapist, see 22640
- Masseur (non-medical), see 51491

Occupation 32559 Physiotherapy technician and related associate professional n.e.c.

This group covers physiotherapy technician and related associate professional not elsewhere classified.

Example(s) of job classified under this code:

- Electrotherapist
- Shiatsu therapist

Example(s) of job not classified under this code:

- Physiotherapist, see 22640
- Occupational therapist, see 22680
- Chiropractor, see 22691
- Osteopath, see 22699

Unit Group 3257 Environmental and Occupational Health Inspectors

Environmental and occupational health inspectors investigate the implementation of rules and regulations relating to environmental factors that can potentially affect human health, and occupational health in the workplace. They may implement and evaluate programmes to restore or improve occupational health and sanitary conditions under the supervision of a health professional.

Tasks include:

- advising employers and workers' representatives on the implementation of government and other rules and regulations concerning occupational health and the working environment
- inspecting places of work to ensure that the working environment, machinery and equipment conform to government and other rules, regulations and standards related to sanitation and/or occupational and environmental health
- giving advice on environmental sanitary problems and techniques
- advising enterprises and the general public on the implementation of government and other rules and regulations concerning hygiene, sanitation, purity and grading of primary products, food, drugs, cosmetics and similar goods
- inspecting establishments to ensure that they conform to government and other rules and regulations concerning emission of pollutants and disposal of dangerous wastes

- initiating action to maintain or improve hygiene and prevent pollution of water, air, food or soil
- promoting preventive and corrective measures such as control of disease carrying organisms and of harmful substances in the air, hygienic food handling, proper disposal of waste and cleaning of public places
- estimating quantities and costs of materials and labour required for health, safety and sanitation remediation projects

Occupation(s) in this Unit Group:

- 32571 Environmental inspector (environmental public health)
- 32572 Occupational health and safety inspector

Occupation 32571 Environmental inspector (environmental public health)

Environmental inspector (environmental public health) inspects the environment, promotes measures to restore or improve sanitary conditions, and supervises their implementation. He/she gives advice on environmental sanitary problems and initiates action to maintain the hygienic quality.

Example(s) of job classified under this code:

- Hawker inspector (government)
- Sanitarian
- Sanitary inspector

Example(s) of job not classified under this code:

- Environmental officer (environmental protection), see 21331
- Occupational health professional, see 22631
- Environmental officer (public health), see 22632

Occupation 32572 Occupational health and safety inspector

Occupational health and safety inspector performs workplace audits to ensure compliance with government and environment legislation. He/she investigates work accidents and interviews employees to ensure the work environment is compliant with health and safety rules.

Example(s) of job classified under this code:

- Health, safety and environmental (HSE) officer

Example(s) of job not classified under this code:

- Industrial safety engineer, see 21493

- Occupational health and safety professional, see 22631

Unit Group 3259 Health Associate Professionals Not Elsewhere Classified

This unit group covers health associate professionals not elsewhere classified.

Tasks include:

- interviewing and examining patients to obtain information on their health status and the nature and extent of injury, illness or other physical or mental health condition
- providing information and counselling to patients and families about certain health conditions, prevention and treatment options, treatment adherence, and personal behaviours that can affect health outcomes
- administering therapeutic care and treatment to patients
- performing certain basic clinical procedures such as administration of HIV antibody tests or insertion of intrauterine devices
- dispensing and advising on dietary supplements, antiretroviral and prophylaxis medications, and other health care products
- monitoring patients' progress through treatment plans, and identifying signs and symptoms requiring referral to a medical doctor or other health professional
- recording information on patients' health status and responses to treatment in medical record-keeping systems
- sharing information with other health care providers when required to ensure continuing and comprehensive care

Notes:

Occupations included in this unit group normally require formal training in health service provision.

Occupation(s) in this Unit Group:

- 32591 Paramedic
- 32599 Other health associate professional n.e.c.

Occupation 32591 Paramedic

Paramedic provides emergency care to sick, injured, and vulnerable persons in emergency medical situations, before and during transport to a medical facility. He/she provides assistance in acute situations and implements life-saving emergency measures.

Example(s) of job classified under this code:

- Ambulance paramedic
- Emergency paramedic

Example(s) of job not classified under this code:

- Ambulance driver, see 83224

Occupation 32599 Other health associate professional n.e.c.

This group covers other health associate professional not elsewhere classified.

Example(s) of job classified under this code:

- Aroma therapist
- Dietetic technician
- Mental health associate

Example(s) of job not classified under this code:

- Ambulance driver, see 83224

SUB-MAJOR GROUP 33 BUSINESS AND ADMINISTRATION ASSOCIATE PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 331 FINANCIAL AND MATHEMATICAL ASSOCIATE PROFESSIONALS
- 332 SALES AND RELATED ASSOCIATE PROFESSIONALS
- 333 BUSINESS SERVICES AGENTS
- 334 ADMINISTRATIVE ASSOCIATE PROFESSIONALS
- 335 GOVERNMENT ASSOCIATE PROFESSIONALS
- 336 TRANSPORT OPERATIONS PLANNERS AND EXECUTIVES

MINOR GROUP 331 FINANCIAL AND MATHEMATICAL ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3312 Credit and Loans Officers
- 3313 Accounting Associate Professionals
- 3315 Valuers and Loss Assessors
- 3316 Financial Services Back Office Administrators

Unit Group 3312 Credit and Loans Officers

Credit and loans officers analyse and evaluate financial information on applications for credit and loans and determine approval or disapproval of the client for the credit or loan or recommend for management approval or disapproval.

Tasks include:

- interviewing applicants for personal, mortgage, student and business loans
- researching and evaluating loan applicant's financial status, references, credit and ability to repay the loan
- submitting credit and loan applications to management with recommendations for approval or rejection or approving or rejecting applications within authorised limits ensuring that credit standards of the institution are respected
- keeping records of payments, and preparing routine letters requesting payment for overdue accounts and forwarding these for legal action
- completing credit and loan documentation

Occupation(s) in this Unit Group:

- 33120 Credit/Loans officer

Occupation 33120 Credit/Loans officer

Credit/Loans officer analyses and evaluates financial information on applications for credit and loans, and determines or recommends for management approval or disapproval of credit and/or loans. He/she ensures complete transactions between loan organisations, borrowers and sellers.

Example(s) of job classified under this code:

- Bank loans officer
- Commercial lender

Example(s) of job not classified under this code:

- Mortgage manager, see 13461
- Financial services back office administrator, see 33160

Unit Group 3313 Accounting Associate Professionals

Accounting associate professionals maintain complete records of financial transactions of an undertaking, verify accuracy of documents and records relating to such transactions, and assist in financial analysis.

Tasks include:

- maintaining complete records of all financial transactions of an undertaking according to general bookkeeping principles, with guidance from accountants
- verifying accuracy of documents and records relating to payments, receipts and other financial transactions
- preparing financial statements and reports for specified periods
- applying knowledge of bookkeeping principles and practices in order to identify and solve problems arising in the course of their work
- assisting in budgeting and forecasting, balance sheet analysis and reconciliation process, profit and loss analysis, and cost analysis

Occupation(s) in this Unit Group:

- 33131 Assistant accountant
- 33132 Audit associate professional
- 33133 Tax associate professional

Occupation 33131 Assistant accountant

Assistant accountant maintains complete records of financial transactions such as sales, purchase, receivables, payables and cash transactions of an undertaking. He/she verifies accuracy of documents and records relating to such transactions. He/she assists in accounts analysis and reconciliation process, budgeting and forecasting process.

Example(s) of job classified under this code:

- Accounting officer

Example(s) of job not classified under this code:

- Accountant (excluding tax accountant), see 24111
- Bookkeeper, see 43111
- Accounts assistant, see 43112

Occupation 33132 Audit associate professional

Audit associate professional supports his/her reporting officer and/or audit team in delivering audit services. He/she undertakes specific stages of audit work under supervision.

Example(s) of job classified under this code:

- Audit (accounting) executive
- Gaming audit officer
- Gaming audit senior officer

Example(s) of job not classified under this code:

- Audit assistant, see 43113

Occupation 33133 Tax associate professional

Tax associate professional supports his/her reporting officer and/or tax team in delivering tax services. He/she undertakes tax assignments such as assisting in the liaison between clients, tax authority, internal stakeholders and external tax agents, and preparation of tax computation, tax schedules and statutory filings.

Example(s) of job classified under this code:

- Tax assistant associate

Unit Group 3315 Valuers and Loss Assessors

Valuers and loss assessors value property and various goods and assess losses covered by insurance policies.

Tasks include:

- determining the quality or value of raw materials, real estate, industrial equipment, personal and household effects, works of art, gems, intellectual property and other objects
- assessing the extent of damage or loss and liabilities of insurance companies and underwriters for losses covered by insurance policies
- obtaining records of sales and value of similar items or property
- inspecting items or property to evaluate condition, size and construction
- preparing reports of value, outlining the estimation factors and methods used

Occupation(s) in this Unit Group:

- 33151 Appraiser/Valuer (excluding intangible asset valuer)
- 33152 Assessor
- 33153 Intangible asset valuer

Occupation 33151 Appraiser/Valuer (excluding intangible asset valuer)

Appraiser/Valuer (excluding intangible asset valuer) determines the value of real estate, industrial equipment, personal and household effects, works of art, gems and other articles, by examining them for condition and authenticity. He/she inspects and examines real estate or articles in question using experience and knowledge, scientific tests and original prices to arrive at an estimate of current market value.

Example(s) of job classified under this code:

- Antique valuer
- Foreclosure specialist
- Plant and machinery valuer

Example(s) of job not classified under this code:

- Actuary, see 21213
- Auctioneer, see 33391

Occupation 33152 Assessor

Assessor assesses the extent of damage or loss and liabilities of insurance companies and underwriters for losses covered by insurance policies. He/she evaluates insurance claims by investigating the cases and determining liability and damage, in accordance with the policies of the insurance company. He/she interviews the claimant and witnesses and writes reports for the insurer and makes recommendations for the settlement of claims.

Example(s) of job classified under this code:

- Claims adjuster
- Claims inspector
- Insurance adjuster
- Insurance assessor

Example(s) of job not classified under this code:

- Actuary, see 21213

Occupation 33153 Intangible asset valuer

Intangible asset valuer determines the value of intangible assets such as intellectual property, brand, know-how and client data by inspecting and examining the intangible asset in question using experience and knowledge.

Example(s) of job classified under this code:

- Intellectual property valuation analyst

Example(s) of job not classified under this code:

- Intellectual property insurer, see 33211

Unit Group 3316 Financial Services Back Office Administrators

Financial services back office administrators perform back office tasks such as documentation, reconciliation and transaction processing support for the financial markets transactions.

Tasks include:

- performing back office tasks such as documentation, reconciliation and transaction processing support for the financial markets transactions

- managing the clearing and settling of trades

- preparing, checking, approving and maintaining requests and documents relating to transactions

- processing customer requests for account opening, closing to facilitate onboarding and off-boarding activities in support of front line relationship management and product sales activities

Occupation(s) in this Unit Group:

- 33160 Financial services back office administrator

Occupation 33160 Financial services back office administrator

Financial services back office administrator performs operational or administrative tasks such as documentation, reconciliation and transaction processing support for the financial markets transactions. He/she processes financial products transactions such as securities, derivatives, foreign exchange, commodities and may manage the clearing and settling of trades. He/she may also be accountable for day-to-day execution of customer account processing and account maintenance procedures.

Example(s) of job classified under this code:

- Consumer banking branch operations and processing executive
- Financial marketing processing and settlement executive

Example(s) of job not classified under this code:

- Credit analyst, see 24131
- Compliance officer (financial), see 24132
- Commercial lender, see 33120

MINOR GROUP 332 SALES AND RELATED ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3321 Insurance Representatives and Related Associate Professionals
- 3322 Commercial and Marketing Sales Executives
- 3323 Buyers and Purchasing Agents
- 3329 Sales and Related Associate Professionals Not Elsewhere Classified

Unit Group 3321 Insurance Representatives and Related Associate Professionals

Insurance representatives and related associate professionals advise on and sell life, accident, automobile, liability, endowment, fire, marine and other types of insurance to new and established clients.

Tasks include:

- obtaining information about customers' circumstances necessary to determine appropriate type of insurance and conditions
- negotiating with customers to determine type and degree of risk for which insurance is required
- explaining details of insurance and conditions, risk coverage premiums and benefits to customers
- assisting clients to determine the type and level of coverage required, calculating premiums and establishing method of payment

Occupation(s) in this Unit Group:

- 33211 Insurance sales agent/broker
- 33219 Insurance representative and related associate professional n.e.c.

Occupation 33211 Insurance sales agent/broker

Insurance sales agent/broker advises on and sells life, accident, automobile, liability, endowment, fire, marine and other types of insurance to new and established clients. He/she obtains information about customers' circumstances necessary to determine the appropriate type of insurance and conditions, negotiating with customers to determine the type and degree of risk for which insurance is required.

Example(s) of job classified under this code:

- Financial adviser (insurance)
- Financial planner
- Insurance sales representative
- Intellectual property insurer

Example(s) of job not classified under this code:

- Bank manager (branch), see 13461
- Insurance services manager, see 13462
- Financial adviser, see 24121
- Securities/Finance dealer, see 24141
- Insurance underwriter, see 24160
- Intellectual property valuation analyst, see 33153

- Insurance/Underwriting clerk, see 43122

Occupation 33219 Insurance representative and related associate professional n.e.c.

This group covers insurance representative and related associate professional not elsewhere classified.

Example(s) of job classified under this code:

- Special agent (group insurance systems)

Example(s) of job not classified under this code:

- Insurance actuary, see 21213
- Insurance assessor, see 33152
- Insurance clerk, see 43122

Unit Group 3322 Commercial and Marketing Sales Executives

Commercial and marketing sales executives represent companies to sell various goods and services to businesses and other organisations and provide specific information as required.

Tasks include:

- soliciting orders and selling goods to retail, industrial, wholesale and other establishments
- selling equipment, supplies and related services to business establishments or individuals
- obtaining and updating knowledge of market conditions and of employer's and competitors' goods and services
- providing prospective customers with information about the characteristics and functions of the products and equipment for sale, and demonstrating its use or qualities
- quoting prices and credit terms, recording orders and arranging deliveries

Occupation(s) in this Unit Group:

- 33221 Business development executive
- 33222 After sales adviser/Client account service executive
- 33223 Marketing and sales executive (food and beverage services)
- 33224 Online sales channel executive
- 33225 Merchandising/Category executive
- 33229 Commercial/Marketing sales executive n.e.c.

Occupation 33221 Business development executive

Business development executive implements sales strategies and business plans. He/she identifies potential new business avenues and platforms through the client base, prepares for, participates in and arranges for follow-up meetings with potential businesses. He/she supports relationship building with existing and new buyers and vendors, and organises events and roadshows.

Example(s) of job classified under this code:

- Fund management business development executive

Example(s) of job not classified under this code:

- Technical sales professional, see 24331

Occupation 33222 After sales adviser/Client account service executive

After sales adviser/Client account service executive provides after-sales service support to customers, such as the installation, maintenance and repair of the sold products. He/she takes corrective actions to ensure customers' satisfaction.

Example(s) of job classified under this code:

- Advertising accounts executive
- Order fulfilment officer
- Quote desk executive

Occupation 33223 Marketing and sales executive (food and beverage services)

Marketing and sales executive (food and beverage services) assists and coordinates food and beverage (F&B) related marketing and sales activities. He/she establishes excellent relationships and builds rapport for customer retention.

Occupation 33224 Online sales channel executive

Online sales channel executive defines the sales programme for e-commerce such as goods sold via e-mail, Internet and social media. He/she contributes to the growth of the e-commerce business by enhancing the customer experience, executing customer order fulfilment and maintaining the technology and infrastructure. He/she assists in the planning of the online sales strategy and in the identifying of marketing opportunities. He/she performs data analysis to generate data-driven commercial insights and manages relationships with partners.

Example(s) of job classified under this code:

- E-commerce associate

Occupation 33225 Merchandising/Category executive

Merchandising/Category executive implements the merchandising plans and product category strategies, as well as manages partner relationships. He/she assists in the development and sourcing of products.

Example(s) of job classified under this code:

- Brand executive
- Category executive
- Merchandising assistant

Occupation 33229 Commercial/Marketing sales executive n.e.c.

This group covers commercial/marketing sales executive not elsewhere classified.

Example(s) of job classified under this code:

- Customer loyalty executive

Example(s) of job not classified under this code:

- Technical sales professional, see 24331

Unit Group 3323 Buyers and Purchasing Agents

Buyers and purchasing agents buy goods and services for use or resale on behalf of industrial, commercial, government or other establishments and organisations.

Tasks include:

- determining or negotiating contract terms and conditions, awarding supplier contracts or recommending contract awards for the purchase of equipment, raw materials products, services and the purchasing of merchandise for resale
- obtaining information about requirements and stock and developing specifications for quantity and quality to be purchased, costs, delivery dates and other contract conditions
- purchasing general and specialised equipment, materials or business services for use or for further processing by their establishment
- inviting tenders, consulting with suppliers and reviewing quotations
- purchasing merchandise for resale by retail or wholesale establishments
- studying market reports, trade periodicals and sales promotion materials and visiting trade shows, showrooms, factories and product design events
- selecting the merchandise or products that best fit the establishment's requirements

- interviewing suppliers and negotiating prices, discounts, credit terms and transportation arrangements
- overseeing distribution of merchandise to outlets and maintaining adequate stock levels
- establishing delivery schedules, monitoring progress and contacting clients and suppliers to resolve problems

Occupation(s) in this Unit Group:

- 33231 Buyer
- 33232 Purchasing agent

Occupation 33231 Buyer

Buyer buys goods for resale in wholesale and retail trade and studying market information on varieties, qualities and prices of goods available. He/she negotiates with suppliers on prices, credit terms, discounts for quantity and arranges delivery schedules. He/she authorises payment of invoices. He/she may price items for resale and oversee distribution of merchandise to outlets and maintain adequate stock levels.

Example(s) of job classified under this code:

- Merchandise buyer (wholesale/retail trade)
- Merchandise purchaser (wholesale/retail trade)

Example(s) of job not classified under this code:

- Sales and purchase broker, see 24361

Occupation 33232 Purchasing agent

Purchasing agent buys machinery, equipment, raw materials, services and other supplies for use by the enterprise. He/she ascertains the requirements of the enterprise and studies market information on varieties and qualities available. He/she interviews vendors to ascertain their ability to meet the organisation's specific requirements for design, performance, price and delivery. He/she may approve bills for payment.

Example(s) of job classified under this code:

- Supply requirements buyer
- Technical purchaser

Example(s) of job not classified under this code:

- Procurement engineer, see 21498

Unit Group 3329 Sales and Related Associate Professionals Not Elsewhere Classified

This unit group covers sales and related associate professionals not elsewhere classified.

Tasks include:

- helping clients to acquire, sell, and license intellectual property assets such as patents, copyrights, trade marks, trade secrets, etc.

Occupation(s) in this Unit Group:

- 33291 Intellectual property broker/transaction specialist
- 33299 Other sales and related associate professional n.e.c.

Occupation 33291 Intellectual property broker/transaction specialist

Intellectual property broker/transaction specialist assists clients to value, in monetary terms, intellectual property assets such as patents, copyrights, trade marks and trade secrets. He/she performs intellectual property brokerage activities. He/she may advise clients on the legal procedures for protecting intellectual property assets and usage of such assets.

Example(s) of job classified under this code:

- Patent broker

Occupation 33299 Other sales and related associate professional n.e.c.

This group covers other sales and related associate professional not elsewhere classified.

Example(s) of job classified under this code:

- Sales organiser (regional/overseas)

MINOR GROUP 333 BUSINESS SERVICES AGENTS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3331 Shipping, Clearing and Forwarding Agents
- 3332 Conference and Event Planners
- 3333 Employment Agents and Labour Contractors
- 3334 Real Estate Agents
- 3339 Business Services Agents Not Elsewhere Classified

Unit Group 3331 Shipping, Clearing and Forwarding Agents

Shipping, clearing and forwarding agents carry out customs clearing procedures and ensure that insurance, export/import licences and other formalities are in order.

Tasks include:

- carrying out customs clearing procedures for exports or imports
- ensuring that insurance is in order
- ensuring that export/import licences and other formalities are in order
- signing and issuing bills of lading
- checking import/export documentation to determine cargo contents, and classifying goods into different fee or tariff groups, using a tariff coding system

Occupation(s) in this Unit Group:

- 33311 Clearing/Forwarding agent
- 33312 Shipping agent/Boarding officer
- 33313 Freight inspector

Occupation 33311 Clearing/Forwarding agent

Clearing/Forwarding agent carries out customs clearing procedures for exports or imports, signs and issues bills of lading, checks import/export documentation to determine cargo contents, and classifies goods into different fee or tariff groups. He/she ensures goods are cleared through customs or quarantine in accordance with import and export laws and regulations.

Example(s) of job classified under this code:

- Railway goods agent

Occupation 33312 Shipping agent/Boarding officer

Shipping agent/Boarding officer represents the ship owner in a foreign port. He/she ensures that insurance, licences and other formalities are in order. He/she processes all formalities and declarations to ensure smooth entry and departure of ships assigned. He/she may also review freight costs, negotiate rates with logistics and insurance companies and prepare quotes for customers.

Example(s) of job classified under this code:

- Ship boarding officer

Occupation 33313 Freight inspector

Freight inspector inspects freight with reference to freight forwarding documents and documents differences in specifications. He/she also inspects freight with reference to compliance with laws and regulations, including inspecting proper positioning, cushioning, restraining and balancing of cargo and inspecting safety.

Unit Group 3332 Conference and Event Planners

Conference and event planners organise and coordinate services for conferences, events, functions, banquets and seminars.

Tasks include:

- promoting conferences, conventions and trade shows to potential customers
- responding to inquiries concerning services provided and costs for room and equipment hire, catering and related services
- meeting with clients to discuss their needs and outlining package options to meet these needs
- arranging and coordinating services, such as conference facilities, catering, signage, displays, audio-visual and computer equipment, accommodation, transport and social events for participants, and logistical arrangements for presenters
- organising registration of participants
- negotiating the type and costs of services to be provided within budget
- overseeing work by contractors and reporting on variations to work orders

Occupation(s) in this Unit Group:

- 33320 Exhibition/Conference/Event planner

Occupation 33320 Exhibition/Conference/Event planner

Exhibition/Conference/Event planner organises and coordinates services for conferences, events, functions, banquets and seminars.

Example(s) of job classified under this code:

- Conference services executive
- Exhibition coordinator
- Wedding coordinator
- Wedding planner

Example(s) of job not classified under this code:

- Exhibition director, see 14391

Unit Group 3333 Employment Agents and Labour Contractors

Employment agents and labour contractors match jobseekers with vacancies, find workers for employers and contract labour for particular projects at the request of enterprises and other organisations including government, institutions, or find places for jobseekers for a commission.

Tasks include:

- matching jobseekers with vacancies
- finding workers for vacant posts against a commission from the employer or worker
- discussing with enterprises/organisations the needed skills and other characteristics of the workers to be employed or contracted
- finding workers with appropriate skills and undertaking the necessary formalities according to national or international regulations and requirements
- ensuring that the employment contracts meet legal requirements and signing them
- advising on training schemes

Occupation(s) in this Unit Group:

- 33330 Employment agent/Labour contractor

Occupation 33330 Employment agent/Labour contractor

Employment agent/Labour contractor matches jobseekers with vacancies, finds workers for employers and contracts labour for particular projects at the request of enterprises and other organisations including government, institutions, or finds places for jobseekers for a commission.

Example(s) of job classified under this code:

- Employment contractor
- Job placement officer

Example(s) of job not classified under this code:

- Executive search consultant, see 24232
- Artiste agent, see 33399
- Sports agent, see 33399

Unit Group 3334 Real Estate Agents

Real estate agents arrange the sale, purchase, rental and lease of real property for a fee.

Tasks include:

- consulting clients on their needs, requirements and eligibility in going through the property transaction
- obtaining or publicising information about properties to be sold or leased and the circumstances of their owner
- arranging property viewing showing properties to be sold or leased to prospective buyers or tenants and explaining terms of sale or conditions of rent or lease
- facilitating negotiations on property price and rent
- drawing up and arranging the signing of leasing and sale agreements
- collecting rent and bond monies on behalf of owner and inspecting properties before, during and after tenancies

Occupation(s) in this Unit Group:

- 33340 Real estate agent

Occupation 33340 Real estate agent

Real estate agent arranges the sale, purchase, rental and lease of real property for a fee.

Example(s) of job classified under this code:

- Property agent
- Realtor

Unit Group 3339 Business Services Agents Not Elsewhere Classified

This unit group covers business services agents not elsewhere classified.

Tasks include:

- obtaining information about services to be sold and needs of prospective buyers
- negotiating contracts on behalf of sellers or buyers and explaining terms of sale and payment to clients
- signing agreements on behalf of sellers or buyers and ensuring that contracts are honoured
- making sure that the business service purchased is made available to the buyer in the agreed format at the agreed time
- selling by auction various kinds of property, cars, commodities, livestock, art, jewellery and other objects
- organising or conducting a casino marketing arrangement

Occupation(s) in this Unit Group:

- 33391 Auctioneer

- 33392 Advertising salesman
- 33393 International market agent/representative
- 33394 Safety/Security consultant
- 33399 Other business services agent n.e.c.

Occupation 33391 Auctioneer

Auctioneer conducts sales of various kinds of new or used property and goods, such as real estate, furniture, and objects d'art by accepting bids and declaring goods sold. He/she arranges the place and date of auction sale and the order in which items are to be sold.

Example(s) of job not classified under this code:

- Appraiser (excluding intangible asset valuer), see 33151

Occupation 33392 Advertising salesperson

Advertising salesperson sells advertising space in press and periodicals and advertising time on radio and television programmes. He/she visits prospective advertisers to explain the merits and coverage of his/her firm's publication or medium, discusses client's requirements and the most suitable media for obtaining best results from a given expenditure.

Example(s) of job classified under this code:

- Advertising representative
- Salesman (broadcasting time)

Occupation 33393 International market agent/representative

International market agent/representative performs marketing arrangements in or with respect to any casino to which the casino operator has given its endorsement.

Example(s) of job classified under this code:

- Junket operator

Occupation 33394 Safety/Security consultant

Safety/Security consultant provides security audit, review and security risk assessment services to clients. He/she recommends security solutions/designs to existing and new structural development projects (public and private facilities) and develops and conducts security training.

Example(s) of job classified under this code:

- Physical security engineer
- Security management specialist

Example(s) of job not classified under this code:

- Building security manager, see 12194
- Security supervisor, see 54142
- Senior security supervisor, see 54141

Occupation 33399 Other business services agent n.e.c.

This group covers other business services agent not elsewhere classified.

Example(s) of job classified under this code:

- Artiste agent
- Sports agent

MINOR GROUP 334 ADMINISTRATIVE ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3346 Logistics and Maintenance Planners
- 3349 Administrative and Related Associate Professionals Not Elsewhere Classified

Unit Group 3346 Logistics and Maintenance Planners

Logistics and maintenance planners plan, develop, implement and evaluate logistics, production and maintenance programmes.

Tasks include:

- analysing and coordinating the logistical, production and maintenance functions of organisations
- assessing production and supply chain problems to develop economically efficient solutions
- designing supply chains and related facilities
- executing warehouse and transportation operations
- processing orders and managing inventory

Occupation(s) in this Unit Group:

- 33461 Logistics/Production planner
- 33462 Maintenance planner

Occupation 33461 Logistics/Production planner

Logistics/Production planner plans, develops, implements and evaluates logistics and production programmes to support the organisation's supply chain operations. He/she plans for the entire production supply chain from feedstock to production, storage and distribution, and analyses inventory and production data to optimise production and inventory control. He/she supports the reporting of plant production status and raw materials inventories, and highlights issues that may affect production output.

Example(s) of job classified under this code:

- Logistics operations specialist
- Logistics planner
- Logistics solutions analyst
- Materials planner

Example(s) of job not classified under this code:

- Logistics solutions engineer, see 21499

Occupation 33462 Maintenance planner

Maintenance planner coordinates with stakeholders to plan and schedule routine and non-routine maintenance work to support plant operations. He/she optimises maintenance plans and schedules to minimise plant downtime and total maintenance cost.

Example(s) of job classified under this code:

- Maintenance scheduler
- Shutdown planner

Unit Group 3349 Administrative and Related Associate Professionals Not Elsewhere Classified

This unit group covers administrative and related associate professionals not elsewhere classified.

Occupation(s) in this Unit Group:

- 33491 Management executive
- 33492 Operations officer (administrative)
- 33493 Crewing executive (ship)
- 33494 Executive secretary
- 33499 Other administrative and related associate professional n.e.c.

Occupation 33491 Management executive

Management executive carries out general, non-specialised duties and implements policy decisions made by the management. He/she may make decisions on matters arising in the detailed implementation of such instructions.

Notes:

Management executive is a common and generic job title. Staff who are involved in specific tasks and duties are classified elsewhere.

Occupation 33492 Operations officer (administrative)

Operations officer (administrative) carries out general, operational duties in non-financial markets related and non-transport related sectors. He/she could either work in public or private sector organisations.

Example(s) of job classified under this code:

- Inventory management executive
- Operations liaison assistant

Example(s) of job not classified under this code:

- Flight operations officer, see 31593
- Train operations officer, see 31596
- Landscape operations officer, see 31602
- Consumer banking branch operations and processing executive, see 33160
- Broadcasting operations technician, see 35211

Notes:

Operations officer (administrative) is a common and generic job title. Staff who are involved in specific tasks and duties are classified elsewhere.

Occupation 33493 Crewing executive (ship)

Crewing executive (ship) supervises or coordinates activities of crew aboard ships, boats, barges, or dredges.

Occupation 33494 Executive secretary

Executive secretary provides administrative and organisational task support to top-level management. He/she performs research, prepares correspondence, reports, presentations, contracts and other specialised documentation. He/she also organises meetings and travel arrangements. He/she may assist in the preparation of budgets, monitoring of expenditures

and client relationship management. He/she may also manage the day-to-day operations of the office or supervise other clerical staff.

Example(s) of job classified under this code:

- Confidential secretary
- Executive assistant

Example(s) of job not classified under this code:

- Secretary, see 41201

Occupation 33499 Other administrative and related associate professional n.e.c.

This group covers other administrative and related associate professional not elsewhere classified.

Example(s) of job classified under this code:

- Programme executive (social service)
- Programme planning and scheduling executive (media)

MINOR GROUP 335 GOVERNMENT ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3351 Customs and Immigration Officers
- 3355 Police Inspectors
- 3359 Government Associate Professionals Not Elsewhere Classified

Unit Group 3351 Customs and Immigration Officers

Customs and immigration officers check persons, vehicles and goods crossing national borders to administer and enforce relevant government rules and regulations.

Tasks include:

- patrolling national borders and coastal waters to stop persons from illegally entering or leaving the country and from illegally importing or exporting currency or goods
- checking travel documents of persons crossing national borders to ensure that they have the necessary authorisations and certificates
- inspecting the luggage of persons crossing national borders to ensure that it conforms to government rules and regulations concerning import or export of goods and currencies

- examining transport documents and freight of vehicles crossing national borders to ensure conformity with government rules and regulations concerning goods in transit and the import and export of goods and to verify that necessary payments have been made
- detaining persons and seizing prohibited and undeclared goods found to be in violation of immigration and customs laws
- coordinating and cooperating with other agencies involved in law enforcement, deportation and prosecution
- performing related administrative tasks to record findings, transactions, violations and determinations
- testifying in a court of law about the circumstances and results of investigations carried out when necessary

Occupation(s) in this Unit Group:

- 33510 Customs/Immigration officer

Occupation 33510 Customs/Immigration officer

Customs/Immigration officer checks persons, vehicles and goods crossing national borders to administer and enforce relevant government rules and regulations.

Example(s) of job classified under this code:

- Border inspector
- Customs inspector
- Passport checking officer

Unit Group 3355 Police Inspectors

Police inspectors manage and supervise a team of police officers. Police inspectors maintain law and order, investigate crimes and handle queries from the public. They may be rotated amongst investigation, command and staff postings.

Tasks include:

- managing and supervising teams of police officers
- making arrests
- analysing evidence in order to solve crimes, identify criminal activity and gather information for court cases
- undertaking planning work for police operations

Occupation(s) in this Unit Group:

- 33551 Police inspector

- 33552 Auxiliary police officer supervisor

Occupation 33551 Police inspector

Police inspector manages and supervises a team of police officers. He/she maintains law and order, investigates crimes and handles queries from the public. He/she may be rotated amongst investigation, command and staff postings.

Example(s) of job not classified under this code:

- Commissioner of police, see 11121
- Police superintendent, see 13491
- Police constable, see 54121

Occupation 33552 Auxiliary police officer supervisor

Auxiliary police officer supervisor leads teams of security police officers to protect assigned premises, assets and personnel. He/she conducts team briefings prior to operations, makes critical decisions during operations, and conducts after action reviews.

Example(s) of job classified under this code:

- Auxiliary police team leader

Example(s) of job not classified under this code:

- Auxiliary police officer, see 54123

Unit Group 3359 Government Associate Professionals Not Elsewhere Classified

This unit group covers government associate professionals not elsewhere classified.

Tasks include:

- examining tax returns, bills of sale and other relevant documents to determine type and amount of taxes, duties and other types of fees to be paid
- advising individuals and organisations on government laws, rules and regulations concerning government benefit programmes and the determination and disbursement of payments or referral to services, as well as on the public's rights and obligations
- examining places of business to ensure the use of correct weights and measures in trade
- monitoring price regulations to assess appropriateness of costs for goods and services to protect consumer interests
- monitoring wage regulations to ensure appropriate levels of pay for work performed and to assess compliance with employment standards legislation

- performing related investigative and administrative tasks to record findings, document compliance problems or inappropriate business practices and to prepare reports and correspondence

Occupation(s) in this Unit Group:

- 33591 Government tax/excise official
- 33592 Government social benefits official
- 33593 Government licensing official
- 33599 Other government associate professional n.e.c.

Occupation 33591 Government tax/excise official

Government tax/excise official examines tax returns, bills of sale and other relevant documents to determine type and amount of taxes, duties and other types of fees to be paid. He/she implements policy to facilitate timely payment of tax by individuals and organisations. He/she also provides information and guidance concerning taxation legislation. He/she examines financial records to investigate fraud.

Example(s) of job classified under this code:

- Excise officer
- Taxation inspector

Occupation 33592 Government social benefits official

Government social benefits official advises individuals and organisations on government laws, rules and regulations concerning government benefit programmes and the determination and disbursement of payments or referral to services, as well as on the public's rights and obligations. He/she aids clients in the applications for benefits such as sickness, maternity, pensions, invalidity, unemployment and family benefits. He/she may investigate the client's right to benefits and suggest an appropriate course of action.

Example(s) of job classified under this code:

- Social benefits officer

Occupation 33593 Government licensing official

Government licensing official processes licence applications and provides advice on licensing legislation. He/she performs investigative duties to ensure the applicant is eligible for the requested licence. He/she ensures that licence fees are paid in a timely manner, and also ensures compliance with legislation.

Example(s) of job classified under this code:

- Building permit licensing officer
- Business permit licensing officer
- Passport issuing officer

Example(s) of job not classified under this code:

- Fire and safety inspector, see 31711

Occupation 33599 Other government associate professional n.e.c.

This group covers other government associate professional not elsewhere classified.

Example(s) of job classified under this code:

- Labour inspector (government)
- Price inspector (government)
- Weights and measures inspector (government)

MINOR GROUP 336 TRANSPORT OPERATIONS PLANNERS AND EXECUTIVES

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3360 Transport Equipment Project Executives

Unit Group 3360 Transport Equipment Project Executives

Transport equipment project executives monitor project status, engage and coordinate with engineers and technicians to meet transport equipment project timelines. They formulate maintenance plans and monitor maintenance work of the projects.

Tasks include:

- establishing and monitoring maintenance schedules
- planning, provisioning and ordering spares and consumables
- sourcing vendors and carrying out contract negotiations to support maintenance, repair and operation activities
- developing strategies for critical customer issues and conducting regular reviews with key suppliers

Occupation(s) in this Unit Group:

- 33601 Air transport equipment project executive
- 33602 Rail transport equipment project executive
- 33603 Road transport equipment project executive

- 33609 Transport equipment project executive n.e.c.

Occupation 33601 Air transport equipment project executive

Air transport equipment project executive monitors project status, engages and coordinates with engineers and technicians to meet air transport equipment project timelines. He/she formulates maintenance plans and monitors maintenance work of the projects.

Example(s) of job classified under this code:

- Air transport fleet management planning executive
- Aircraft maintenance planning supervisor

Occupation 33602 Rail transport equipment project executive

Rail transport equipment project executive monitors project status, engages and coordinates with engineers and technicians to meet rail transport equipment project timelines. He/she formulates maintenance plans and monitors maintenance work of the projects.

Example(s) of job classified under this code:

- Planning supervisor (rail maintenance)
- Rail maintenance planning executive
- Senior planning executive (rail engine/component maintenance)

Occupation 33603 Road transport equipment project executive

Road transport equipment project executive monitors project status, engages and coordinates with engineers and technicians to meet road transport equipment project timelines. He/she formulates maintenance plans and monitors maintenance work of the projects.

Example(s) of job classified under this code:

- Road transport maintenance planning supervisor

Occupation 33609 Transport equipment project executive n.e.c.

This group covers transport equipment project executive not elsewhere classified.

Example(s) of job classified under this code:

- Planning supervisor (water transport engine/component maintenance)
- Planning supervisor (water transport management)
- Senior planning executive (water transport engine/component maintenance)

- Water transport maintenance planning executive

SUB-MAJOR GROUP 34 LEGAL, SOCIAL, CULTURAL AND RELATED ASSOCIATE PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 341 LEGAL AND SOCIAL ASSOCIATE PROFESSIONALS
- 342 SPORTS AND FITNESS WORKERS
- 343 ARTISTIC AND CULTURAL ASSOCIATE PROFESSIONALS
- 344 CREATIVE AND PERFORMING ARTS ASSOCIATE PROFESSIONALS

MINOR GROUP 341 LEGAL AND SOCIAL ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3411 Legal Associate Professionals
- 3412 Social Work Associate Professionals

Unit Group 3411 Legal Associate Professionals

Legal associate professionals perform support functions in courts of law or in law offices, provide services related to such legal matters as insurance contracts, intellectual property, the transferring of property and the granting of loans and other financial transactions or conduct investigations for clients.

Tasks include:

- documenting court proceedings and judgements
- preparing legal documents including trial briefs, pleadings, appeals, wills and contracts and preparing papers summarising legal positions, or setting out conditions of loans or insurance
- examining documentation such as mortgages, liens, judgements, easements, contracts and maps in order to verify properties, legal descriptions and ownership
- preparing documents relating to transfer of real estate, stocks or other matters requiring formal registration

Occupation(s) in this Unit Group:

- 34110 Legal associate professional

Occupation 34110 Legal associate professional

Legal associate professional performs support functions in courts of law or in law offices, provides services related to such legal matters as insurance contracts, intellectual property,

the transferring of property and the granting of loans and other financial transactions or conducts investigations for clients.

Example(s) of job classified under this code:

- Conveyance executive
- Paralegal

Example(s) of job not classified under this code:

- Advocate/Solicitor (practising), see 26111
- Conveyancing clerk, see 44170
- Legal clerk, see 44170

Unit Group 3412 Social Work Associate Professionals

Social work associate professionals administer and implement social assistance programmes and community services and assist clients to deal with personal and social problems.

Tasks include:

- collecting information relevant to clients' needs and assessing their relevant skills, strengths and deficits
- helping physically or mentally handicapped persons to obtain services and to improve their ability to function in society
- assisting clients to identify options and develop plans of action while providing necessary support and assistance
- assisting clients to identify and access community resources including legal, medical and financial assistance, housing, employment, transportation, assistance with moves, day care and other referral services
- participating in the selection and admission of clients to appropriate programmes
- providing crisis intervention and emergency shelter services
- implementing life skills workshops, substance abuse treatment programmes, behaviour management programmes, youth services programmes and other community and social service programmes under the supervision of social work or health care professionals
- assisting in evaluating the effectiveness of interventions and programmes by monitoring and reporting on clients' progress
- maintaining contact with other social service agencies, schools and health care providers involved with clients to provide information and obtain feedback on clients' overall situation and progress

Occupation(s) in this Unit Group:

- 34121 Youth work associate

- 34122 Social work associate
- 34123 Volunteer executive

Occupation 34121 Youth work associate

Youth work associate assists in providing interventions and programmes to youths. He/she supports the facilitation and assessments of case work, group work, community development and youth outreach programmes. He/she supports youth engagements through schools, public and cyber outreach.

Example(s) of job not classified under this code:

- Youth work professional, see 26623
- Youth worker, see 26623

Occupation 34122 Social work associate

Social work associate assists in providing interventions and programmes, and performing community development work. He/she assists in coordinating case work, group work and community development activities and programmes, supporting community events and performing administrative functions.

Example(s) of job classified under this code:

- Child care inspector
- Community development worker
- Community service worker
- Crisis intervention worker
- Family service worker

Example(s) of job not classified under this code:

- Social worker (general), see 26621
- Probation officer, see 26623
- Parole officer, see 26631
- Counsellor (family), see 26633

Occupation 34123 Volunteer executive

Volunteer executive coordinates recruitment activities for volunteers and matches them to the appropriate programmes and clients based on programme requirements and the interest of volunteers. He/she trains volunteers and also conducts volunteer recognition and

engagement programmes. He/she conducts needs analysis for volunteer programmes, implements risk mitigation measures as well as volunteer management policies and processes, and works with programme managers to develop the requirements for the volunteer profile. He/she also maintains network and collaborates with social services organisations, community stakeholders, corporate partners and agencies for volunteer partnerships.

Example(s) of job classified under this code:

- Volunteer work coordinator

Example(s) of job not classified under this code:

- Volunteer manager, see 13442

MINOR GROUP 342 SPORTS AND FITNESS WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3421 Athletes and Sportsmen
- 3422 Sports Coaches, Instructors, Officials and Related Associate Professionals

Unit Group 3421 Athletes and Sportsmen

Athletes and sportsmen participate in competitive sporting events. They train and compete, either individually or as part of a team, in their chosen sport.

Tasks include:

- participating in competitive sporting events
- participating in regular practice and training sessions and undertaking private training to maintain the required standard of fitness
- undertaking sports promotional activities and media interviews
- maintaining a high degree of expertise in a particular sport
- deciding on strategies in consultation with coaches
- assessing other competitors and conditions at venues
- competing in sporting events
- adhering to the rules and regulations associated with a specific sport

Occupation(s) in this Unit Group:

- 34210 Athlete/Sportsperson

Occupation 34210 Athlete/Sportsperson

Athlete/Sportsperson participates in competitive sporting events. He/she trains and competes, either individually or as part of a team, in his/her chosen sport.

Example(s) of job classified under this code:

- Billiards player
- Boxer (professional sport)
- Cycle racer
- Football player

Unit Group 3422 Sports Coaches, Instructors, Officials and Related Associate Professionals

Sports coaches, instructors, officials and related associate professionals work with amateur and professional sportspersons to enhance performance, encourage greater participation in sport, and organise and officiate in sporting events according to established rules.

Tasks include:

- identifying strengths and weaknesses of athletes or teams
- planning, developing and implementing training and practice sessions
- developing, planning and coordinating competitive schedules and programmes
- motivating and preparing athletes or teams for competitive events or games
- formulating competitive strategy, developing game plans and directing athletes and players during games or athletic events
- analysing and evaluating athletes' or teams' performances and modifying training programmes
- monitoring and analysing technique and performance, and determining how future improvements can be made
- officiating at sporting events or athletic competitions to maintain standards of play and to ensure that game rules and safety regulations are observed
- recording lapsed time and keeping scores during events or competitions
- judging the performance of competitors, awarding points, imposing penalties for infractions and determining results
- compiling scores and other athletic records

Occupation(s) in this Unit Group:

- 34221 Sports coach
- 34222 Martial arts instructor

- 34223 Physical fitness instructor
- 34224 Sports official
- 34229 Sports coach/instructor/official and related associate professional n.e.c.

Occupation 34221 Sports coach

Sports coach works with amateur and professional sportspersons to enhance performance, encourages greater participation in sport, and organises and officiates in sporting events according to established rules.

Example(s) of job classified under this code:

- Athletic trainer
- Billiards instructor
- Games coach
- Sports instructor

Occupation 34222 Martial arts instructor

Martial arts instructor trains individuals or groups in martial arts. He/she instructs clients during training and teaches students the techniques of martial arts.

Example(s) of job classified under this code:

- Karate instructor
- Taekwondo instructor

Occupation 34223 Physical fitness instructor

Physical fitness instructor delivers fitness instruction to individuals, with the use of equipment, or to a group, through fitness classes. He/she also promotes and delivers safe and effective exercise.

Example(s) of job classified under this code:

- Aerobics instructor
- Fitness trainer
- Yoga instructor

Occupation 34224 Sports official

Sports official administers the rules and laws of a sport and ensures fair play according to the rules and laws. He/she applies rules/laws during the sport or activity, contributing to health, safety and protection of participants and others during the sport or activity, organises sport events, establishes and maintains effective working relationships with competitors and others.

Example(s) of job classified under this code:

- Judge (sports)
- Referee (sports)
- Steward (race track)

Occupation 34229 Sports coach/instructor/official and related associate professional n.e.c.

This group covers sports coach/instructor/official and related associate professional not elsewhere classified.

Example(s) of job classified under this code:

- Adventure training instructor
- Outdoor adventure educator
- Scuba diving instructor

MINOR GROUP 343 ARTISTIC AND CULTURAL ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3431 Photographers
- 3432 Interior Designers and Decorators
- 3433 Gallery, Museum and Library Technicians
- 3434 Chefs
- 3439 Artistic and Cultural Associate Professionals Not Elsewhere Classified

Unit Group 3431 Photographers

Photographers operate still cameras to photograph people, events, scenes, materials, products and other subjects.

Tasks include:

- taking photographs for advertising, or other commercial, industrial or scientific purposes and to illustrate stories and articles in newspapers, magazines and other publications

- taking portrait photographs of persons and groups of persons
- studying requirements of a particular assignment and decide on type of camera, film, lighting and background accessories to be used
- determining picture composition, making technical adjustments to equipment and photograph subject
- operating scanners to transfer photographic images to computers
- operating computers to manipulate photographic images
- adapting existing photographic images to create new digitised images to be included in multimedia products
- using airbrush, computer or other techniques to create the desired visual effect

Occupation(s) in this Unit Group:

- 34310 Photographer

Occupation 34310 Photographer

Photographer operates still cameras to photograph people, events, scenes, materials, products and other subjects.

Example(s) of job classified under this code:

- Fashion photographer
- Medical photographer
- Photo-journalist
- Portrait photographer
- Sports photographer

Example(s) of job not classified under this code:

- Fashion editor, see 26422
- Director of photography (motion picture), see 26543
- Videographer, see 35212
- Television/Motion picture camera operator, see 35213
- Camera repairer, see 73119

Unit Group 3432 Interior Designers and Decorators

Interior designers and decorators plan and design commercial, industrial, public, retail and residential building interiors and surrounding landscapes to produce an environment tailored to a purpose, taking

into consideration factors that enhance living and working environments and sales promotion. They coordinate and participate in their construction and decoration.

Tasks include:

- determining the objectives and constraints of the design brief by consulting with clients and stakeholders
- researching and analysing spatial, functional, efficiency, safety and aesthetic requirements and translating research insights into target design outcomes
- formulating design concepts for the interiors of buildings and their surrounding landscape
- preparing sketches, diagrams, illustrations and plans to communicate design concepts
- negotiating design solutions with clients, management, suppliers and construction staff
- selecting, specifying and recommending functional and aesthetic materials, furniture and products for interiors and landscapes
- prototyping and refining creative concepts leading to a final design solution
- detailing and documenting selected designs for construction
- coordinating the construction and the decoration of interiors and surrounding landscapes
- designing and painting stage scenery
- designing and decorating show windows and other display areas to promote products and services

Occupation(s) in this Unit Group:

- 34321 Interior designer
- 34322 Decorator
- 34323 Visual merchandiser

Occupation 34321 Interior designer

Interior designer designs interior decoration and plans the furnishing of homes, public buildings, ships and other places. He/she studies the general requirements and confers with colleagues and clients to determine the style preferences, space limitations and other similar considerations. He/she also formulates appropriate designs, prepares sketches and models showing wall decorations, colour schemes and choice and arrangement of furnishings, and submits them for approval. He/she estimates quantities and costs of decorating materials and furnishings required, prepares working specifications and supervises decorating work and installation of furnishings.

Example(s) of job classified under this code:

- Exhibition designer (Interior design)
- Interior decoration designer

Example(s) of job not classified under this code:

- Building architect, see 21610

Occupation 34322 Decorator

Decorator plans and creates decorations of homes, public buildings, ships and other places based on clients' requirements. He/she creates and executes decorations for set design, magazines, advertising and other purposes.

Example(s) of job classified under this code:

- Display decorator
- Interior decorator
- Set designer
- Window dresser

Occupation 34323 Visual merchandiser

Visual merchandiser manages shopper marketing activities and conceptualises the visual merchandising plans. He/she oversees the set-up of merchandise display by coaching in-store teams. He/she conducts market research efforts relating to visual merchandising. He/she also conceptualises eye-catching product displays, store layouts and designs to promote the store's products.

Example(s) of job classified under this code:

- Display artist
- Visual merchandising assistant
- Window display designer

Unit Group 3433 Gallery, Museum and Library Technicians

Gallery, museum and library technicians prepare artworks, specimens and artefacts for collections, arrange and construct gallery exhibits, and assist librarians to organise and operate systems for handling recorded material and files.

Tasks include:

- mounting and preparing objects for display
- designing and arranging exhibit furnishings, display cases and display areas
- assisting in setting up lighting and display equipment
- receiving, shipping, packing and unpacking exhibits

- ordering new library materials and maintaining library records and circulation systems
- cataloguing printed and recorded material
- entering data into databases and editing computer records
- operating audio-visual and reprographic equipment
- searching and verifying bibliographic data

Occupation(s) in this Unit Group:

- 34331 Library officer
- 34332 Gallery/Museum and related technician

Occupation 34331 Library officer

Library officer assists librarians by helping readers in the use of library catalogues, databases, and indexes to locate books and other materials. He/she also compiles records, sorts and shelves books or other media, removes or repairs damaged books or other media, registers patrons and checks materials in and out of the circulation process. He/she replaces materials in shelving areas.

Example(s) of job classified under this code:

- Library technician

Example(s) of job not classified under this code:

- Librarian, see 26221
- Library assistant, see 44110

Occupation 34332 Gallery/Museum and related technician

Gallery/Museum and related technician restores, maintains, or prepares objects in museum or gallery collections for storage, research, or exhibition. He/she may work with artefacts, textiles, art or specimens such as fossils, skeletal parts, or botanicals. He/she may identify and record objects or install and arrange them in exhibits.

Example(s) of job classified under this code:

- Naturalist (taxidermist)
- Taxidermist

Unit Group 3434 Chefs

Chefs design menus, create dishes and oversee the planning, organisation, preparation and cooking of meals in hotels, restaurants and other eating places, on board ships, on passenger trains and in private households.

Tasks include:

- planning and developing recipes and menus, estimating food and labour costs, and ordering food supplies
- monitoring quality of dishes at all stages of preparation and presentation
- discussing food preparation issues with managers, dietitians, kitchen and waiting staff
- supervising and coordinating the activities of cooks and other workers engaged in food preparation
- inspecting supplies, equipment, and work areas to ensure conformance to established standards
- determining how food should be presented, and creating decorative food displays
- instructing cooks and other workers in the preparation, cooking, garnishing, and presentation of food
- participating in the recruitment of kitchen staff and monitoring their performance
- preparing, seasoning and cooking speciality foods and complex dishes
- explaining and enforcing hygiene and food safety regulations

Occupation(s) in this Unit Group:

- 34341 Chef (excluding pastry chef)
- 34342 Kitchen operations head/supervisor
- 34343 Pastry chef

Occupation 34341 Chef (excluding pastry chef)

Chef (excluding pastry chef) oversees all the production of food served at the restaurant, banquet functions, and other outlets. He/she develops recipes and menus, monitors food quality and presentation, estimates food and labour costs, while maintaining the highest quality and sanitation standards. He/she may also monitor and control stock levels and liaise with the relevant suppliers for food orders. He/she supervises cooks and other workers engaged in food preparation and enforces proper implementation of health and safety procedures in the kitchen. He/she may prepare, season and cook speciality foods and complex dishes.

Example(s) of job classified under this code:

- Assistant head chef
- Chef de cuisine

- Executive chef

Example(s) of job not classified under this code:

- Research and development (R&D) chef, see 21454
- Pastry chef, see 34343
- Assistant cook, see 51201
- Chef de partie, see 51202
- Short order cook, see 94103

Occupation 34342 Kitchen operations head/supervisor

Kitchen operations head/supervisor oversees all operations in the central kitchen. He/she ensures production targets, portion sizing, product quality and specifications are reached. He/she also manages the production schedule and monitors the overall production output levels. He/she formulates new food production standards and Standard Operating Procedures (SOPs). He/she monitors quality assurance on an overall level through conducting spot checks, investigates production/quality issues in the kitchen and recommends solutions. He/she monitors and recommends ways to reduce waste production.

Example(s) of job classified under this code:

- Central kitchen sous chef
- Head of central kitchen operations

Occupation 34343 Pastry chef

Pastry chef oversees all the production of pastry served at the restaurant, banquet functions, and other outlets. He/she creates new and exciting desserts to renew the menus and engage the interest of customers, and decorates pastries using different icings, toppings etc. He/she also monitors stocks for baking ingredients such as flour, sugar etc. and makes appropriate orders within budget, while checking the quality of materials and the condition of equipment and devices used for cooking.

Example(s) of job classified under this code:

- Assistant pastry chef
- Executive pastry chef

Example(s) of job not classified under this code:

- Chef (excluding pastry chef), see 34341

Unit Group 3439 Artistic and Cultural Associate Professionals Not Elsewhere Classified

This unit group covers artistic and cultural associate professionals not elsewhere classified.

Occupation(s) in this Unit Group:

- 34391 Tattooist
- 34399 Other artistic/cultural associate professional n.e.c.

Occupation 34391 Tattooist

Tattooist decorates clients' skin through tattooing. He/she follows clients' preferences in terms of tattoo design and body surface and applies it safely. He/she advises on methods to avoid infection following the procedures on clients' bodies.

Occupation 34399 Other artistic/cultural associate professional n.e.c.

This group covers other artistic/cultural associate professional not elsewhere classified.

Example(s) of job classified under this code:

- Fashion stylist
- Gaffer
- Ivory carver
- Lighting technician

MINOR GROUP 344 CREATIVE AND PERFORMING ARTS ASSOCIATE PROFESSIONALS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3440 Creative and Performing Arts Associate Professionals

Unit Group 3440 Creative and Performing Arts Associate Professionals

Creative and performing arts associate professionals entertain audiences by performing a variety of acts.

Tasks include:

- performing amusing antics and telling funny stories
- performing tricks of illusion and sleight of hand, and feats of hypnotism
- performing difficult and spectacular acrobatics, and gymnastic or juggling feats
- training and performing with animals

Occupation(s) in this Unit Group:

- 34401 Disc jockey
- 34409 Creative/Performing arts associate professional n.e.c.

Occupation 34401 Disc jockey

Disc jockey mixes music from various sources using turntables or a mixing console and plays music at events in front of a live audience. He/she creates mixes for later distribution and playback. He/she may select the music played on radio or live event and broadcast the music according to schedule.

Occupation 34409 Creative/Performing arts associate professional n.e.c.

This group covers creative/performing arts associate professional not elsewhere classified.

Example(s) of job classified under this code:

- Hypnotist
- Illusionist
- Juggler

SUB-MAJOR GROUP 35 INFORMATION AND COMMUNICATIONS TECHNICIANS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 351 INFORMATION AND COMMUNICATIONS TECHNOLOGY OPERATORS AND TECHNICIANS
- 352 TELECOMMUNICATIONS AND BROADCASTING TECHNICIANS AND AUDIO-VISUAL OPERATORS

MINOR GROUP 351 INFORMATION AND COMMUNICATIONS TECHNOLOGY OPERATORS AND TECHNICIANS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3511 Computer Systems Operators
- 3512 Computer Technicians
- 3514 Website Administrators

Unit Group 3511 Computer Systems Operators

Computer systems operators support the day-to-day processing, operation and monitoring of information and communications technology systems, including local and wide area networks (LANs

and WANs), and hardware, software and related computer equipment to ensure optimal performance and identify any problems.

Tasks include:

- operating and controlling peripheral and related computer equipment
- entering commands using computer terminals, and activating controls on computer and peripheral equipment to integrate and operate equipment
- monitoring systems for equipment failure or errors in performance
- notifying the supervisor or maintenance technicians of equipment malfunctions
- responding to programme error messages by finding and correcting problems, escalating the problem to other staff or terminating the programme
- reading job set-up instructions to determine equipment to be used, order of use, material such as disks and paper to be loaded, and control settings
- retrieving, separating and sorting programme output as needed, and sending data to specified users
- loading peripheral equipment, such as printers, with selected materials for operating runs, or overseeing
- loading of peripheral equipment by peripheral equipment operators

Occupation(s) in this Unit Group:

- 35110 Computer systems operator

Occupation 35110 Computer systems operator

Computer systems operator supports the day-to-day processing, operation and monitoring of information and communications technology systems, including local and wide area networks (LANs and WANs), and hardware, software and related computer equipment to ensure optimal performance and identify any problems.

Example(s) of job classified under this code:

- Computer peripheral equipment operator
- Encoding machine operator

Example(s) of job not classified under this code:

- Computer systems technician, see 35121

Unit Group 3512 Computer Technicians

Computer technicians provide technical assistance to users, either directly or by telephone, e-mail or other electronic means, including diagnosing and resolving issues and problems with software,

hardware, computer peripheral equipment, networks, databases and the internet, and providing guidance and support in the deployment, installation and maintenance of systems.

Tasks include:

- answering user inquiries regarding software or hardware operation to resolve problems
- entering commands and observing system functioning to verify correct operations and detect errors
- installing and performing minor repairs to hardware, software, or peripheral equipment, following design or installation specifications
- overseeing the daily performance of communications and computer systems
- setting up equipment for employee use, performing or ensuring proper installation of cables, operating systems, or appropriate software
- maintaining records of daily data communication transactions, problems and remedial actions taken, or installation activities
- emulating or reproducing technical problems encountered by users
- consulting user guides, technical manuals and other documents to research and implement solutions

Occupation(s) in this Unit Group:

- 35121 IT infrastructure technician
- 35122 IT security technician
- 35123 IT support technician
- 35129 Computer technician n.e.c.

Occupation 35121 IT infrastructure technician

IT infrastructure technician performs routine infrastructure operations and maintenance activities. He/she assists with monitoring infrastructure performance. He/she checks for problems in existing systems and modifies work processes by following defined procedures, processes and quality standards.

Example(s) of job classified under this code:

- Computer systems technician
- IT operations technician

Example(s) of job not classified under this code:

- Computer systems operator, see 35110

Occupation 35122 IT security technician

IT security technician checks for problems in existing systems and modifies simple work processes by following defined procedures, processes and quality standards. He/she monitors systems and supports the development of IT security solutions.

Example(s) of job classified under this code:

- ICT security officer

Occupation 35123 IT support technician

IT support technician provides technical support to end users on various technical issues and problems relating to hardware and software. He/she responds, documents and resolves service tickets in a timely manner and according to Service Level Agreements. He/she creates report templates and formats for analysis. He/she performs ad-hoc root cause analysis, develops checklists for common problems and defines methods for issue resolution and prevention.

Example(s) of job classified under this code:

- Information technology (IT) field engineer
- ICT helpdesk specialist
- IT user helpdesk technician

Occupation 35129 Computer technician n.e.c.

This group covers computer technician not elsewhere classified.

Example(s) of job classified under this code:

- Computer database assistant
- Computer programming assistant

Unit Group 3514 Website Administrators

Website administrators maintain, monitor and support the optimal functioning of internet and intranet websites and web server hardware and software.

Tasks include:

- installing, monitoring and supporting the reliability and usability of internet and intranet websites or web server hardware or software
- developing and maintaining documentation, policies and instructions, recording operational procedures and system logs
- developing, coordinating, implementing and monitoring security measures

- analysing and making recommendations to enhance performance, including upgrading and acquiring new systems
- liaising with, and providing guidance to clients and users
- modifying web pages
- performing web server backup and recovery operations

Occupation(s) in this Unit Group:

- 35140 Website administrator/Webmaster

Occupation 35140 Website administrator/Webmaster

Website administrator/Webmaster maintains, monitors and supports the optimal functioning of internet and intranet website and web server hardware and software.

Example(s) of job classified under this code:

- LAN systems administrator
- WAN systems administrator

Example(s) of job not classified under this code:

- Data/Database administrator, see 25211
- Network/Server/Applications/Computer systems administrator, see 25220

MINOR GROUP 352 TELECOMMUNICATIONS AND BROADCASTING TECHNICIANS AND AUDIO-VISUAL OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3521 Broadcasting Technicians and Audio-Visual Operators
- 3522 Telecommunications Engineering Technicians
- 3523 Telecommunications Equipment Operators
- 3529 Telecommunications and Broadcasting Technicians and Audio-Visual Operators Not Elsewhere Classified

Unit Group 3521 Broadcasting Technicians and Audio-Visual Operators

Broadcasting technicians and audio-visual operators control technical functioning of equipment to record and edit images and sound and for transmitting radio and television broadcasts of images and sounds.

Tasks include:

- controlling equipment to record sound
- controlling equipment to edit and mix image and sound recordings to ensure satisfactory quality and to create special image and sound effects
- applying knowledge of principles and practices of image and sound recording and editing in order to identify and solve problems
- controlling transmitting and broadcast systems and satellite systems for radio and television programmes

Occupation(s) in this Unit Group:

- 35211 Media/Broadcasting operations technician
- 35212 Video camera operator
- 35213 Television/Motion picture camera operator
- 35214 Radio/Television studio equipment operator
- 35215 Sound engineering technician
- 35219 Broadcasting technician/Audio-visual operator n.e.c.

Occupation 35211 Media/Broadcasting operations technician

Media/Broadcasting operations technician installs, starts up, maintains, monitors and repairs equipment used for the transmission and reception of broadcast signals. He/she ensures that all materials are available in a suitable format of transmittable quality according to the transmission deadline.

Example(s) of job not classified under this code:

- Video camera operator, see 35212
- Grip, see 35213
- Broadcasting equipment operator (excluding sound recording), see 35214
- Sound engineering technician, see 35215

Occupation 35212 Video camera operator

Video camera operator sets up, prepares, checks and maintains equipment in order to provide optimal projected image quality for a performance. He/she cooperates with road crew to unload, set up and operate video equipment and instruments.

Example(s) of job classified under this code:

- Videographer

Example(s) of job not classified under this code:

- Photographer, see 34310
- Broadcasting operations technician, see 35211
- Grip, see 35213
- Video operator (television broadcasting), see 35214

Occupation 35213 Television/Motion picture camera operator

Television/Motion picture camera operator sets up and operates motion picture/television camera to film scenes. He/she positions camera, adjusts focus as necessary to maintain balance and composition of picture.

Example(s) of job classified under this code:

- Grip

Example(s) of job not classified under this code:

- Director of photography (motion picture), see 26543
- Portrait photographer, see 34310
- Broadcasting operations technician, see 35211
- Video camera operator, see 35212
- Television studio equipment operator, see 35214
- Sound engineering technician, see 35215

Occupation 35214 Radio/Television studio equipment operator

Radio/Television studio equipment operator operates radio and television broadcasting studio equipment, and sets up microphones and amplifiers for use in sound pickup. He/she controls video console to regulate transmission of television scenes.

Example(s) of job classified under this code:

- Broadcasting equipment operator (excluding sound recording)
- Camera control operator (television broadcasting)
- Video operator (television broadcasting)

Example(s) of job not classified under this code:

- Broadcasting operations technician, see 35211
- Video camera operator, see 35212
- Grip, see 35213
- Sound engineering technician, see 35215

Occupation 35215 Sound engineering technician

Sound engineering technician maintains and operates equipment to record, synchronise, mix, edit, or reproduce sound, including music, voices, or sound effects, for theatre, video, film, television, podcasts, sporting events, and other productions.

Example(s) of job classified under this code:

- Microphone operator
- Wire recording equipment operator

Example(s) of job not classified under this code:

- Broadcasting operations technician, see 35211
- Broadcasting equipment operator (excluding sound recording), see 35214

Occupation 35219 Broadcasting technician/Audio-visual operator n.e.c.

This group covers broadcasting technician/audio-visual operator not elsewhere classified.

Example(s) of job classified under this code:

- Audio-visual data wrangler
- Cinema film projectionist
- Foley artist

Example(s) of job not classified under this code:

- Music director (theatre), see 26543
- Microphone operator, see 35215

Unit Group 3522 Telecommunications Engineering Technicians

Telecommunications engineering technicians perform technical tasks connected with telecommunications engineering research, as well as with the design, manufacture, assembly, construction, operation, maintenance and repair of telecommunications systems.

Tasks include:

- providing technical assistance connected with research and the development of telecommunications equipment or testing prototypes
- studying technical material such as blue prints and sketches to determine the method of work to be adopted
- preparing detailed estimates of quantities and costs of materials and labour required for the manufacture and installation of telecommunications equipment, according to the specifications given

- providing technical supervision of the manufacture, utilisation, maintenance and repair of telecommunications systems to ensure satisfactory performance and compliance with specifications and regulations
- applying technical knowledge of telecommunications engineering principles and practices in order to identify and solve problems arising in the course of their work

Occupation(s) in this Unit Group:

- 35220 Telecommunications engineering technician

Occupation 35220 Telecommunications engineering technician

Telecommunications engineering technician performs technical tasks connected with telecommunications engineering research, as well as with the design, manufacture, assembly, construction, operation, maintenance and repair of telecommunications systems.

Example(s) of job classified under this code:

- Telecommunications equipment technician
- Telecommunications technician

Example(s) of job not classified under this code:

- Electronics engineering technician, see 31141
- Telecommunications lineman, see 74223
- Telecommunications installer, see 74224
- Telecommunications and telephone mechanic, see 74224

Unit Group 3523 Telecommunications Equipment Operators

Telecommunications equipment operators control technical functioning of equipment in order to broadcast or transmit telecommunication signals on land, sea or in aircraft.

Tasks include:

- controlling radio communications systems, satellite services, and multiplex systems on land, sea or in aircraft
- applying knowledge of principles and practices of broadcasting, telecommunications terminals and transmissions systems, in order to identify and solve problems
- making emergency repairs to equipment

Occupation(s) in this Unit Group:

- 35231 Telecommunications service supervisor
- 35232 Radio-telephone operator (land-based)

- 35239 Telecommunications equipment operator n.e.c.

Occupation 35231 Telecommunications service supervisor

Telecommunications service supervisor controls and supervises telecommunications operational services, such as radio, telephone and telegraph. He/she conducts investigations of users' requirements and prepares reports for management on operating efficiency and makes proposals for future development.

Occupation 35232 Radio-telephone operator (land-based)

Radio-telephone operator (land-based) operates land-based radio telephone equipment to transmit messages to or receive them from ships, aircraft, vehicles, field or other installations. He/she tunes radio set to desired frequency and adjusts as required in addition to transmitting and receiving operational messages in ordinary language or in codes.

Occupation 35239 Telecommunications equipment operator n.e.c.

This group covers telecommunications equipment operator not elsewhere classified.

Example(s) of job classified under this code:

- Flight radio operator
- Ship's radio officer
- Telegrapher

Unit Group 3529 Telecommunications and Broadcasting Technicians and Audio-Visual Operators Not Elsewhere Classified

This unit group covers telecommunications and broadcasting technicians and audio-visual operators not elsewhere classified.

Occupation(s) in this Unit Group:

- 35290 Telecommunications/Broadcasting technician/Audio-visual operator n.e.c.

Occupation 35290 Telecommunications/Broadcasting technician/Audio-visual operator n.e.c.

This group covers telecommunications/broadcasting technician/audio-visual operator not elsewhere classified.

Example(s) of job classified under this code:

- Optical and electronic equipment operator

SUB-MAJOR GROUP 36 TEACHING ASSOCIATE PROFESSIONALS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 361 PRESCHOOL EDUCATION TEACHERS
- 362 EXTRACURRICULUM INSTRUCTORS
- 369 TEACHING ASSOCIATE PROFESSIONALS NOT ELSEWHERE CLASSIFIED

MINOR GROUP 361 PRESCHOOL EDUCATION TEACHERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3610 Preschool Education Teachers

Unit Group 3610 Preschool Education Teachers

Preschool education teachers promote the social, physical, and intellectual development of children below primary school age through the provision of educational and play activities.

Tasks include:

- planning and organising individual and group activities designed to facilitate the development of children's motor skills, cooperative and social skills, confidence and understanding
- promoting language development through story-telling, role-play, songs, rhymes and informal conversations and discussions
- leading children in activities that provide opportunities for creative expression through the media of art, dramatic play, music and physical fitness
- observing children in order to evaluate progress and to detect signs of developmental, emotional or health related problems with parents
- observing and assessing nutritional health, welfare and safety needs of students and identifying factors which may impede students' progress
- supervising children's activities to ensure safety and resolve conflicts
- guiding and assisting children in the development of proper eating, dressing and toilet habits
- discussing progress or problems of children with parents and other staff members and identifying appropriate actions and referrals to other services
- establishing and maintaining collaborative relationships with other service providers working with young children

Occupation(s) in this Unit Group:

- 36100 Preschool education teacher

Occupation 36100 Preschool education teacher

Preschool education teacher promotes the holistic development of children below primary school age. He/she creates a secure and quality learning environment for the children through nurturing trusting and respectful relationships with them. He/she enriches children's learning by co-designing and implementing a developmentally and culturally appropriate curricula, while effectively integrating innovative teaching and learning practices.

Example(s) of job classified under this code:

- Beginning infant educator
- Early years educator
- Preschool educator

Example(s) of job not classified under this code:

- Preschool education principal, see 13410
- Primary school teacher, see 23500

MINOR GROUP 362 EXTRACURRICULUM INSTRUCTORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3620 Extracurriculum Instructors

Unit Group 3620 Extracurriculum Instructors

Extracurriculum instructors teach non-native languages for migration and related purposes, give private tuition, teach arts, information technology and other subjects outside the mainstream primary, secondary and higher education systems.

Tasks include:

- teaching non-native languages for migration or other purposes
- teaching students in practice, theory and performance of music, drama, dance, visual and other arts
- developing, scheduling and conducting training programmes and courses for information technology users

Occupation(s) in this Unit Group:

- 36201 Language instructor (extracurriculum)
- 36202 Art and craft instructor (extracurriculum)

- 36203 Information technology trainer (extracurriculum)
- 36204 Music instructor (extracurriculum)
- 36205 Dance instructor (extracurriculum)
- 36206 Speech and drama instructor (extracurriculum)
- 36209 Extracurriculum instructor n.e.c.

Occupation 36201 Language instructor (extracurriculum)

Language instructor (extracurriculum) educates non-age-specific students in a language that is not their native language at a specialised school, not bound by a level of education. He/she focuses less on the academic aspect of language teaching, as opposed to language teachers in secondary or higher education and organises classes using a variety of lesson materials.

Example(s) of job classified under this code:

- Language school teacher

Example(s) of job not classified under this code:

- Institute of Technical Education (ITE) teacher, see 23300
- Secondary school teacher, see 23400
- Primary school teacher, see 23500
- University lecturer, see 23101
- Private tutor (academic), see 36910

Occupation 36202 Art and craft instructor (extracurriculum)

Art and craft instructor (extracurriculum) instructs students in various styles of visual arts, such as drawing, painting, and sculpting, in a recreational context. He/she provides students with an overview of art history, but primarily utilises a practice-based approach in courses.

Example(s) of job classified under this code:

- Calligraphy teacher
- Dress making teacher (excluding vocational school)
- Flower arrangement teacher

Example(s) of job not classified under this code:

- Artist (painting), see 26511

Occupation 36203 Information technology trainer (extracurriculum)

Information technology trainer (extracurriculum) conducts training needs analysis and designs programmes to train students in the use of software packages and information systems accordingly. He/she maintains and updates expertise on specialised ICT subjects in addition to evaluating and reporting on students' performance.

Example(s) of job classified under this code:

- Computer teacher (computer training school)

Occupation 36204 Music instructor (extracurriculum)

Music instructor (extracurriculum) instructs students in various musical genres and expression forms, such as classical, jazz, folk, pop, blues, rock, electronic etc. in a recreational context. He/she assists students to experiment with different styles and techniques, in the musical instrument of their choice while encouraging them to develop their own style.

Example(s) of job classified under this code:

- Guitar instructor (extracurriculum)
- Piano instructor (extracurriculum)
- Singing instructor (extracurriculum)
- Violin instructor (extracurriculum)

Occupation 36205 Dance instructor (extracurriculum)

Dance instructor (extracurriculum) instructs students in the various dance genres and forms, such as ballet, jazz, tap, ballroom, hip-hop, Latin, folk dance etc., in a recreational context. He/she assists students in experimenting with and mastering different dance and dramatic expression styles and techniques and encourages them to develop their own style.

Example(s) of job classified under this code:

- Dance coach
- Dance trainer
- Dancing teacher (private tuition)

Example(s) of job not classified under this code:

- Ballet dancer, see 26530

Occupation 36206 Speech and drama instructor (extracurriculum)

Speech and drama instructor (extracurriculum) instructs students in the various theatrical genres and dramatic expression forms, such as comedy, tragedy, prose, poetry, improvisation,

monologues, dialogues etc., in a recreational context. He/she assists students in experimenting with and mastering different dramatic expression styles and techniques and encourages them to develop their own style.

Example(s) of job classified under this code:

- Drama teacher (private tuition)
- Dramatic arts instructor (extracurriculum)
- Speech teacher (private tuition)

Occupation 36209 Extracurriculum instructor n.e.c.

This group covers extracurriculum instructor not elsewhere classified.

Example(s) of job classified under this code:

- Youth leadership teacher

MINOR GROUP 369 TEACHING ASSOCIATE PROFESSIONALS NOT ELSEWHERE CLASSIFIED

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3691 Private Tutors
- 3699 Teaching Associate Professionals Not Elsewhere Classified

Unit Group 3691 Private Tutors

Private tutors provide private tuition to schoolchildren in academic subjects, usually at the latter's homes or at tuition centres.

Tasks include:

- assessing students' level of ability and determining learning needs
- planning, preparing and delivering programmes of study, lessons and workshops for individual and groups of students
- preparing and presenting material on the theory of the subject area being studied
- instructing and demonstrating practical aspects of the subject area being studied
- assigning exercises and work relevant to students' level of ability, interests and aptitude
- assessing students and offering advice, criticism and encouragement
- revising curricula, course content, course materials and methods of instruction
- preparing students for examinations and assessments

Occupation(s) in this Unit Group:

- 36910 Private tutor (academic)

Occupation 36910 Private tutor (academic)

Private tutor (academic) provides private tuition to schoolchildren in academic subjects, usually at the latter's homes or at tuition centres.

Example(s) of job classified under this code:

- Private tutor (pre-university education)
- Private tutor (primary education)
- Private tutor (secondary education)

Example(s) of job not classified under this code:

- Language instructor (extracurriculum), see 36201

Unit Group 3699 Teaching Associate Professionals Not Elsewhere Classified

This unit group covers teaching associate professionals not elsewhere classified.

Tasks include:

- maintaining discipline and order in the classroom
- delivering pre-prepared programmes of study, lessons and workshops

Occupation(s) in this Unit Group:

- 36991 Relief teacher
- 36999 Other teaching associate professional n.e.c.

Occupation 36991 Relief teacher

Relief teacher teaches students on a short-term basis as a temporary replacement for a regular classroom teacher.

Example(s) of job classified under this code:

- Relief allied educator
- Relief teacher (preschool)
- Relief teacher (secondary education)

Occupation 36999 Other teaching associate professional n.e.c.

This group covers other teaching associate professional not elsewhere classified.

Example(s) of job not classified under this code:

- Music instructor (extracurriculum), see 36204
- Private tutor (secondary education), see 36910
- Relief teacher, see 36991

SUB-MAJOR GROUP 39 OTHER ASSOCIATE PROFESSIONALS NOT ELSEWHERE CLASSIFIED

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 399 OTHER ASSOCIATE PROFESSIONALS NOT ELSEWHERE CLASSIFIED

MINOR GROUP 399 OTHER ASSOCIATE PROFESSIONALS NOT ELSEWHERE CLASSIFIED

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 3991 Religious Associate Professionals

Unit Group 3991 Religious Associate Professionals

Religious associate professionals provide support to ministers of religion or to a religious community, undertake religious works, and preach and propagate the teachings of a particular religion.

Tasks include:

- undertaking religious works
- preaching and propagating the teachings of a particular religious faith
- assisting at services of public worship and religious rites
- providing religious education, spiritual guidance and moral support to individuals and communities
- administering and participating in programmes to provide food, clothing and shelter to those in need

Occupation(s) in this Unit Group:

- 39910 Non-ordained religious associate professional

Occupation 39910 Non-ordained religious associate professional

Non-ordained religious associate professional provides support to ministers of religion or to a religious community, undertakes religious works, and preaches and propagates the teachings of a particular religion.

Example(s) of job classified under this code:

- Faith healer
- Layworker
- Medium
- Preacher (non-ordained)

Example(s) of job not classified under this code:

- Abbot, see 26361
- Imam, see 26361
- Pastor, see 26361
- Missionary, see 26369

MAJOR GROUP 4 CLERICAL SUPPORT WORKERS

Occupation(s) in this Major Group are classified into the following Sub-major Group(s):

- 40 CLERICAL SUPERVISORS
- 41 GENERAL AND KEYBOARD CLERKS
- 42 CUSTOMER SERVICES OFFICERS AND CLERKS
- 43 NUMERICAL AND MATERIAL-RECORDING CLERKS
- 44 OTHER CLERICAL SUPPORT WORKERS

SUB-MAJOR GROUP 40 CLERICAL SUPERVISORS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 400 CLERICAL SUPERVISORS

MINOR GROUP 400 CLERICAL SUPERVISORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 4000 Clerical Supervisors

Unit Group 4000 Clerical Supervisors

Clerical supervisors supervise the clerical activities of a distinct unit within an establishment. The unit could be responsible for duties in connection with general administration, data collection, money-handling operations, travel arrangements, requests for information, coordination activities and appointments.

Tasks include:

- estimating manpower requirements and assigning duties to workers
- analysing and resolving work problems
- coordinating work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 40000 Office supervisor

Occupation 40000 Office supervisor

Office supervisor supervises the clerical activities of a distinct unit within an establishment. The unit could be responsible for duties in connection with general administration, data collection, money-handling operations, travel arrangements, requests for information, coordination activities and appointments. He/she maintains a close view of administrative processes such as controlling correspondence, designing filing systems, reviewing and approving supply requisitions, assigning and monitoring clerical functions.

Example(s) of job classified under this code:

- Accounts section supervisor
- Courier service supervisor
- Field supervisor (market research)

Example(s) of job not classified under this code:

- Postal service supervisor, see 44121
- Count supervisor, see 52301

SUB-MAJOR GROUP 41 GENERAL AND KEYBOARD CLERKS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 411 GENERAL OFFICE CLERKS
- 412 SECRETARIES AND VERBATIM REPORTERS
- 413 KEYBOARD OPERATORS

MINOR GROUP 411 GENERAL OFFICE CLERKS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 4110 General Office Clerks

Unit Group 4110 General Office Clerks

General office clerks perform a wide range of general duties, mostly connected with the keeping of office records and routine aspects of legal matters and personnel records.

Tasks include:

- recording, preparing, sorting, classifying and filing information
- keeping address and mailing lists
- sorting, opening and sending mail

- photocopying and faxing documents
- preparing reports and correspondence of a routine nature
- recording issue of equipment to staff
- responding to telephone or electronic enquiries or forwarding to appropriate person
- checking figures, preparing invoices and recording details of financial transactions made
- transcribing information onto computers and proofreading and correcting copy
- keeping personnel or any other office records

Notes:

In distinguishing the work of general office clerks from that of workers classified in Unit Group 4120 'Secretaries and Verbatim Reporters', it should be noted that the work of secretaries is primarily concerned with the transcription, formatting and processing of correspondence and other documentation. Whilst general office clerks may perform some work of this nature, the transcription and processing of documentation is not the main focus of the work.

Occupation(s) in this Unit Group:

- 41101 Office clerk
- 41102 Personnel/Human resource clerk
- 41109 General office clerk n.e.c.

Occupation 41101 Office clerk

Office clerk performs office clerical duties that require knowledge of office systems and procedures. He/she completes clerical duties assigned which may include a combination of answering telephones, bookkeeping, typing or word processing, office machine operation, maintaining and updating filing, inventory, mailing and database systems.

Example(s) of job classified under this code:

- Copying clerk
- Filing clerk
- Registry clerk

Occupation 41102 Personnel/Human resource clerk

Personnel/Human resource clerk provides support to human resource managers and professionals. He/she assists in the preparation of recruitment processes by scanning Curriculum Vitaes (CV) and narrowing the selection to the most suitable candidates, and schedules interviews by coordinating appointments. He/she provides administrative support in payroll and employee benefit/compensation programmes and maintains employee information database.

Example(s) of job classified under this code:

- Records clerk (personnel department)

Example(s) of job not classified under this code:

- Payroll clerk, see 43114

Occupation 41109 General office clerk n.e.c.

This group covers general office clerk not elsewhere classified.

Example(s) of job classified under this code:

- Cage secretary
- Correspondence clerk
- Licensing clerk
- Public relations (PR) clerk
- Safe deposit clerk

Example(s) of job not classified under this code:

- Secretary, see 41201
- Library assistant, see 44110
- Cage supervisor, see 52301

MINOR GROUP 412 SECRETARIES AND VERBATIM REPORTERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 4120 Secretaries and Verbatim Reporters

Unit Group 4120 Secretaries and Verbatim Reporters

Secretaries and verbatim reporters use typewriters, personal computers or other word-processing equipment to transcribe correspondence and other documents in court hearings and other official committees and meetings, check and format documents prepared by other staff, deal with incoming and outgoing mail, screen requests for meetings or appointments and perform a variety of administrative support tasks.

Tasks include:

- checking, formatting and transcribing correspondence, minutes and reports from dictation, electronic documents or written drafts to conform to office standards, using typewriter, personal computer or other word processing equipment

- using various computer software packages including spreadsheets to provide administrative support
- dealing with incoming or outgoing mail
- scanning, recording and distributing mail, correspondence and documents
- screening requests for meetings or appointments and helping to organise meetings
- screening and recording leave and other staff-members' entitlements
- organising and supervising filing systems
- dealing with routine correspondence on their own initiative

Occupation(s) in this Unit Group:

- 41201 Secretary
- 41202 Verbatim reporter

Occupation 41201 Secretary

Secretary performs a variety of administrative tasks to help keep an organisation running smoothly. He/she answers telephone calls, drafts and sends e-mails, maintains diaries, arranges appointments, takes messages, files documents, organises and services meetings, and manages databases.

Example(s) of job classified under this code:

- Private secretary

Example(s) of job not classified under this code:

- Executive secretary, see 33494
- Cage secretary, see 41109

Occupation 41202 Verbatim reporter

Verbatim reporter makes verbatim records of proceedings by shorthand writing or using a shorthand-writing machine. He/she attends meetings, lectures, courts of law and other proceedings and makes verbatim records in rapid shorthand. He/she dictates shorthand notes to typist or into dictating machines or passes notes to typist for transcription. He/she may also perform typing duties.

Example(s) of job classified under this code:

- Court reporter
- Shorthand verbatim reporter

Example(s) of job not classified under this code:

- Typist/Word processing operator, see 41310
- Clerk of court, see 44170

MINOR GROUP 413 KEYBOARD OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 4131 Typists and Word Processing Operators
- 4132 Data Entry Clerks

Unit Group 4131 Typists and Word Processing Operators

Typists and word processing operators input and process text and data; prepare, edit and generate documents for storage, processing, publication and transmission.

Tasks include:

- typing written material from rough drafts, corrected copies, voice recordings, or shorthand using a computer, word processor or typewriter
- checking completed work for proper spelling, grammar, punctuation and formatting
- gathering and arranging the material to be typed, following instructions
- filing and storing completed documents on computer hard drive or disk, or maintaining a computer filing system to store, retrieve or update documents
- transcribing information recorded in shorthand and on sound recording equipment

Occupation(s) in this Unit Group:

- 41310 Typist/Word processing operator

Occupation 41310 Typist/Word processing operator

Typist/Word processing operator inputs and processes text and data; prepares, edits and generates documents for storage, processing, publication and transmission.

Example(s) of job classified under this code:

- Braille typist
- Stenographer

Example(s) of job not classified under this code:

- Shorthand verbatim reporter, see 41202

Unit Group 4132 Data Entry Clerks

Data entry clerks enter coded, statistical, financial and other numerical data into electronic equipment, computerised databases, spreadsheets or other data repositories using a keyboard, mouse, or optical scanner, speech recognition software or other data entry tools. They enter data into mechanical and electronic devices to perform mathematical calculations.

Tasks include:

- receiving and registering invoices, forms, records and other documents for data capture
- entering numerical data, codes and text from source material into computer-compatible storage and processing devices
- verifying accuracy and completeness of data and correcting entered data, if needed
- operating bookkeeping and calculating machines
- importing and exporting data between different database systems and software

Occupation(s) in this Unit Group:

- 41320 Data entry clerk

Occupation 41320 Data entry clerk

Data entry clerk enters coded, statistical, financial and other numerical data into electronic equipment, computerised databases, spreadsheets or other data repositories using a keyboard, mouse, or optical scanner, speech recognition software or other data entry tools. He/she enters data into mechanical and electronic devices to perform mathematical calculations.

Example(s) of job classified under this code:

- Payment entry clerk

Example(s) of job not classified under this code:

- Billing clerk, see 43115
- Data processing control clerk, see 43151

SUB-MAJOR GROUP 42 CUSTOMER SERVICES OFFICERS AND CLERKS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 421 TELLERS, MONEY COLLECTORS AND RELATED CLERKS
- 422 CLIENT INFORMATION CLERKS

MINOR GROUP 421 TELLERS, MONEY COLLECTORS AND RELATED CLERKS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 4211 Bank Tellers and Related Counter Clerks
- 4213 Pawnbrokers and Moneylenders
- 4214 Bill Collectors and Related Workers

Unit Group 4211 Bank Tellers and Related Counter Clerks

Bank tellers and related counter clerks deal directly with clients of banks or post offices in connection with receiving, changing and paying out money or providing mail services.

Tasks include:

- processing customer cash deposits and withdrawals, cheques, transfers, bills, credit card payments, money orders, certified cheques and other related banking transactions
- crediting and debiting clients' accounts
- paying bills and making money transfers on clients' behalf
- receiving mail, selling postage stamps and conducting other post office counter business such as bill payments, money transfers and related business
- changing money from one currency to another, as requested by clients
- making records of all transactions and reconciling them with cash balance

Occupation(s) in this Unit Group:

- 42111 Bank teller
- 42112 Postal service counter clerk
- 42113 Money changer
- 42119 Bank teller and related counter clerk n.e.c.

Occupation 42111 Bank teller

Bank teller receives and pays out money in a bank, keeps records of customers' transactions and issues receipts. He/she receives deposits and pays out cash after making the necessary examination of signatures on cheques and of customers' accounts and verification of information such as identification of persons receiving payments and the legality of documents. He/she makes or sees that appropriate entries are made in customer's personal account books, sorts and counts, wraps and balances coins using various machines.

Example(s) of job classified under this code:

- Bank cashier

- Bank customer service clerk

Example(s) of job not classified under this code:

- Cashier (general), see 52302

Occupation 42112 Postal service counter clerk

Postal service counter clerk performs any combination of tasks in a post office. He/she weighs letters and parcels to computes mailing costs and affixes the correct postage. He/she receives and sorts incoming and outgoing letters and parcels, examines mail to ensure the correct postage for mailing and places mail in mail racks or bags. He/she also sells stamps, postal cards, stamped envelopes and answers questions regarding mail procedures and postage rates.

Example(s) of job classified under this code:

- Mail service counter clerk

Occupation 42113 Money changer

Money changer changes money from one currency to another. He/she ascertains customers' requirements, verifies that transactions complies with foreign currency exchange control regulations, counts and examines currency and travel cheques to be exchanged, calculates equivalent value in required currency and issues money accordingly. He/she also counts and records cash at the beginning and end of each period of duty and prepares reconciliation statements.

Occupation 42119 Bank teller and related counter clerk n.e.c.

This group covers bank teller and related counter clerk not elsewhere classified.

Example(s) of job classified under this code:

- Remittance clerk

Example(s) of job not classified under this code:

- Store cashier, see 52302

Unit Group 4213 Pawnbrokers and Moneylenders

Pawnbrokers and moneylenders lend money against articles deposited as pledges, or against property or other security.

Tasks include:

- evaluating articles offered as pledges, calculating interest and lending money
- returning articles when the loan is paid or, in the event of non-payment, selling pledged articles

- lending money as personal loans against success of future harvest and other similar undertakings
- collecting loans when the pledge involved the success of future harvest and other similar undertakings
- keeping a record of items received and money distributed and received

Occupation(s) in this Unit Group:

- 42131 Pawnbroker
- 42132 Moneylender

Occupation 42131 Pawnbroker

Pawnbroker offers loans to clients by securing them with personal objects or items. He/she assesses the personal items given in exchange for the loan, determines their value and amount of loan available. He/she also keeps track of inventory assets.

Example(s) of job classified under this code:

- Pawn shop operator

Occupation 42132 Moneylender

Moneylender lends money on interest to individuals or companies with or without collateral securities. He/she makes independent investigations on creditors' financial standing, obtains collateral security which are usually title deeds on movable or immovable property, prepares the necessary papers and obtains acknowledgement for amount loaned. He/she collects repayment in accordance with agreed terms and also maintains accounts of transactions.

Example(s) of job not classified under this code:

- Bill collector, see 42141

Unit Group 4214 Bill Collectors and Related Workers

Bill collectors and related workers collect payments on overdue accounts and bad cheques and collect charity payments.

Tasks include:

- tracing and locating debtors
- telephoning, visiting, or writing to customers to collect money or arrange for later payments
- preparing reports including amounts collected and maintaining records and files related to collection work
- recommending legal action or discontinuation of service when payment cannot be otherwise obtained

- asking for and collecting charity payments

Occupation(s) in this Unit Group:

- 42141 Bill collector
- 42149 Bill collector and related worker n.e.c.

Occupation 42141 Bill collector

Bill collector locates, notifies, delivers bills and solicits payments due from customers of delinquent accounts. He/she makes debt repayment arrangements, based on customers' financial situations and advises customers of necessary actions and strategies for debt repayment. He/she issues receipts to customers for amounts collected and also keeps simple accounts.

Example(s) of job classified under this code:

- Debt recovery officer

Example(s) of job not classified under this code:

- Moneylender, see 42132

Occupation 42149 Bill collector and related worker n.e.c.

This group covers bill collector and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Toll collector
- Charity collector

MINOR GROUP 422 CLIENT INFORMATION CLERKS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 4221 Travel Agency and Related Clerks
- 4223 Telephone Operators
- 4224 Receptionists, Customer Service and Information Clerks
- 4229 Client Information Clerks Not Elsewhere Classified

Unit Group 4221 Travel Agency and Related Clerks

Travel agency and related clerks supply information, arrange travel itineraries, obtain travel and accommodation reservations and organise group tours.

Tasks include:

- obtaining information about the availability, cost and convenience of different types of transport and accommodation, ascertaining customers' requirements and advising them on travel arrangements
- preparing itineraries
- making and confirming reservations
- issuing tickets and vouchers
- helping customers in obtaining necessary travel documents such as visas
- preparing bills and receiving payments
- organising group tours for business or vacation travel and selling them to groups or individuals

Occupation(s) in this Unit Group:

- 42210 Travel consultant/reservation executive

Occupation 42210 Travel consultant/reservation executive

Travel consultant/reservation executive handles and processes travel reservation requests and enquiries, provides customised information and consultation on travel offers, and sells travel services together with other related services.

Example(s) of job classified under this code:

- Ticketing officer (travel agency)
- Travel adviser
- Travel agency clerk
- Travel reservations clerk

Example(s) of job not classified under this code:

- Travel agency manager, see 14392
- Airline ticket agent, see 42244
- Tourist guide, see 51131

Unit Group 4223 Telephone Operators

Telephone operators operate telephone communication switchboards and consoles to establish telephone connections, receive caller inquiries and service problem reports, and record and relay messages to staff or clients.

Tasks include:

- operating switchboards and consoles to connect, hold, transfer and disconnect telephone calls

- making connections for outgoing calls
- dealing with telephone inquiries and recording messages
- forwarding messages to staff or clients
- investigating operating system problems and informing repair services

Occupation(s) in this Unit Group:

- 42230 Telephone operator

Occupation 42230 Telephone operator

Telephone operator operates telephone communication switchboards and consoles to establish telephone connections, receive caller inquiries and service problem reports, and record and relay messages to staff or clients.

Example(s) of job classified under this code:

- Answering service operator
- Emergency service dispatcher

Example(s) of job not classified under this code:

- Contact centre information clerk, see 42246
- Telephone surveyor, see 43142

Unit Group 4224 Receptionists, Customer Service and Information Clerks

Receptionists, customer service and information clerks receive and welcome visitors, clients or guests; respond to personal, written, electronic mail, and telephone enquiries and complaints about the organisation's goods, services and policies, provide information and refer people to other sources; and also assist customers in various aspects such as making reservations, arranging appointments and presenting statements of charges to departing customers and receiving payment.

Tasks include:

- receiving and welcoming visitors, guests or clients
- answering inquiries about goods, services, and policies and providing information about their availability, location, price and related issues
- dealing with telephone requests for information or appointments; and providing advice, information and assistance
- identifying requirements and entering events into a computer system
- referring complex enquiries to team leaders or expert advisers
- recording information about enquiries and complaints

- issuing relevant forms, information kits and brochures to interested parties

Occupation(s) in this Unit Group:

- 42241 Receptionist (general)
- 42242 Hotel receptionist
- 42243 Medical/Dental receptionist
- 42244 Passenger services agent
- 42245 Customer service officer/clerk
- 42246 Contact centre information clerk
- 42247 Hotel executive
- 42249 Receptionist/Customer service/information clerk n.e.c.

Occupation 42241 Receptionist (general)

Receptionist (general) receives clients or customers coming into establishment, ascertains their wants, and directs them accordingly. He/she obtains caller's name and arranges for him/her to see the person called upon and directs the caller to his/her destination and records name, time of call, nature of business, and the person called upon. He/she also schedules appointments and maintains appointment calendars. He/she may perform various clerical duties.

Example(s) of job classified under this code:

- Front desk receptionist
- Office receptionist

Example(s) of job not classified under this code:

- Hotel receptionist, see 42242
- Medical receptionist, see 42243
- Airport receptionist, see 42244

Occupation 42242 Hotel receptionist

Hotel receptionist receives guests at hotels and similar establishments that provides accommodation services. He/she assigns rooms, answers questions relating to hotel, tourist and other local services and amenities, transmits messages for guests, prepares bills to departing guests and arranges for clearance of baggage and departure.

Example(s) of job classified under this code:

- Guest relations officer

- Hotel front desk clerk
- Hotel reservations clerk

Example(s) of job not classified under this code:

- Front desk receptionist, see 42241
- Receptionist (general), see 42241
- Hotel front desk executive, see 42247
- Concierge (hotel), see 96272

Occupation 42243 Medical/Dental receptionist

Medical/Dental receptionist receives patients in hospitals, clinics and surgeries, records particulars and guides them to appropriate section or physician. He/she interviews patients and records particulars like name, age, address on cards, fixes appointments with different units, physicians or dentists and types correspondence dealing with patients. He/she may handle payments and accounts.

Example(s) of job classified under this code:

- Patient service associate
- Veterinary clinic receptionist

Example(s) of job not classified under this code:

- Receptionist (general), see 42241
- Hospital admissions clerk, see 42290

Occupation 42244 Passenger services agent

Passenger services agent provides assistance to customers at check-in counters. He/she performs passenger check-in, verifies documents, distributes and collects gate passes. He/she also facilitates premier services, escorts passengers to transit lounge and handles VIPs. He/she resolves passenger issues and assists passengers with reduced mobility or those who require special assistance. He/she also issues meal vouchers and inter-connection tickets, arranges transport to and from hotel or accommodation and assists in return bookings of passengers. He/she may allocate seats in aircraft or vessel.

Example(s) of job classified under this code:

- Airline customer service agent
- Airline ticket agent
- Airport receptionist
- Ground hostess (airport)

- Harbour check-in agent

Example(s) of job not classified under this code:

- Travel reservations clerk, see 42210
- Receptionist (general), see 42241

Occupation 42245 Customer service officer/clerk

Customer service officer/clerk handles inquiries and complaints through phone, email and social media or in person and maintains overall goodwill between an organisation and its customers. He/she records, assists and resolves customers' inquiries, requests and complaints, by exchanging merchandise, adjusting bills, preparing and completing forms and orders. He/she also manages data regarding customer satisfaction and reports it.

Example(s) of job classified under this code:

- Order fulfilment assistant

Example(s) of job not classified under this code:

- Hotel guest services executive, see 42247

Occupation 42246 Contact centre information clerk

Contact centre information clerk provides information to customers via the telephone and other media such as email. He/she answers inquiries about a company's or organisation's services, products and policies.

Example(s) of job classified under this code:

- Customer call centre officer

Example(s) of job not classified under this code:

- Telephone operator, see 42230
- Telephone surveyor, see 43142
- Telemarketer, see 52440

Notes:

Only workers who respond to requests for information and/or handle straightforward transactions are classified as contact centre information clerks. Those who provide specialised services, such as travel consultants, are classified in the relevant occupations whether or not they are located in customer contact centres.

Occupation 42247 Hotel executive

Hotel executive assists with the supervision of the reservations and front desk department and the coordination of training at the individual and departmental level. He/she oversees rooms sale and manages inventory to maximise transient sales. He/she also assists guests on enquiries and ensures that all guest requests are dealt with in a timely and professional manner. He/she ensures procedures are performed to the property's standards, and assists reservation staff to resolve all guest issues and recommends appropriate measures where required.

Example(s) of job classified under this code:

- Club floor executive (supervisor)
- Hotel front desk executive
- Hotel guest services executive
- Hotel reservations executive

Example(s) of job not classified under this code:

- Guest relations officer, see 42242
- Hotel front desk clerk, see 42242
- Customer service officer/clerk, see 42245

Occupation 42249 Receptionist/Customer service/information clerk n.e.c.

This group covers receptionist/customer service/information clerk not elsewhere classified.

Example(s) of job classified under this code:

- Information clerk

Example(s) of job not classified under this code:

- Travel reservations clerk, see 42210

Unit Group 4229 Client Information Clerks Not Elsewhere Classified

This unit group covers client information clerks not elsewhere classified.

Tasks include:

- interviewing patients to obtain and process information required to provide hospital services
- interviewing applicants for public assistance to gather information pertinent to their application
- verifying the accuracy of information provided
- initiating procedures to grant, modify, deny or terminate assistance

- providing information and answering questions concerning benefits and claims procedures
- referring patient or applicant to other organisations if they are ineligible for services

Occupation(s) in this Unit Group:

- 42290 Client information clerk n.e.c.

Occupation 42290 Client information clerk n.e.c.

This group covers client information clerk not elsewhere classified.

Example(s) of job classified under this code:

- Hospital admissions clerk
- Welfare eligibility clerk

Example(s) of job not classified under this code:

- Patient service associate, see 42243

SUB-MAJOR GROUP 43 NUMERICAL AND MATERIAL-RECORDING CLERKS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 431 NUMERICAL CLERKS
- 432 MATERIAL-RECORDING AND TRANSPORT CLERKS

MINOR GROUP 431 NUMERICAL CLERKS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 4311 Accounting and Bookkeeping Clerks
- 4312 Finance and Insurance Clerks
- 4314 Statistical Clerks
- 4315 Computer Operations Clerks

Unit Group 4311 Accounting and Bookkeeping Clerks

Accounting and bookkeeping clerks compute, classify, and record numerical data to keep financial records complete. They perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records.

Tasks include:

- checking figures, postings, and documents for correct entry, mathematical accuracy, and proper codes
- operating computers programmed with accounting software to record, store, and analyse information
- classifying, recording, and summarising numerical and financial data to compile and keep financial records, using journals and ledgers or computers
- calculating, preparing, and issuing bills, invoices, account statements, and other financial statements according to established procedures
- compiling statistical, financial, accounting or auditing reports and tables pertaining to such matters as cash receipts, expenditures, accounts payable and receivable, and profits and losses

Occupation(s) in this Unit Group:

- 43111 Bookkeeper
- 43112 Ledger/Accounts clerk
- 43113 Audit clerk
- 43114 Payroll/Wages clerk
- 43115 Billing clerk
- 43116 Procurement/Purchasing clerk
- 43119 Accounting/Bookkeeping clerk n.e.c.

Occupation 43111 Bookkeeper

Bookkeeper keeps a set of records of financial transactions of an organisation. He/she verifies the accuracy of documents and clerical records relating to payments, receipts and other financial transactions, and makes and checks entries in ledgers. He/she also balances books, and compiles reports at regular intervals to show receipts, expenditures, accounts payable and receivable, profit or loss and other financial information pertinent to the running of the business. He/she prepares financial statements and statements of accounts for customers and performs a variety of other tasks related to bookkeeping.

Example(s) of job classified under this code:

- General ledger bookkeeper

Example(s) of job not classified under this code:

- Accountant (excluding tax accountant), see 24111
- Auditor (accounting), see 24112
- Accounting officer, see 33131
- Ledger/Accounts clerk, see 43112

Occupation 43112 Ledger/Accounts clerk

Ledger/Accounts clerk maintains records of one phase or section of an organisation's financial transactions, such as accounts receivable or accounts payable. He/she verifies the accuracy of documents relating to records maintained, makes necessary calculations, summarises totals, makes and checks entries in ledger and balances books at regular intervals. He/she also makes physical check of stock, calculates commissions, discounts and interest charges, prepares simple statements of accounts and performs other related tasks.

Example(s) of job classified under this code:

- Accounts assistant

Example(s) of job not classified under this code:

- Assistant accountant, see 33131
- Bookkeeper, see 43111
- Wages clerk, see 43114

Occupation 43113 Audit clerk

Audit clerk checks and verifies figures, calculations and postings pertaining to various transactions that have been recorded and submitted for checking. He/she inspects items in books of original entry, such as cash book or journal to ensure proper recording of transactions, counts cash on hand, checks amount of bank balance and verifies journal and ledger entries against receipts for cash payments.

Example(s) of job classified under this code:

- Audit assistant
- Reconciliation clerk

Example(s) of job not classified under this code:

- Audit (accounting) executive, see 33132

Occupation 43114 Payroll/Wages clerk

Payroll/Wages clerk maintains individual wage records information on hours worked, rates of pay, overtime, bonus or piece-work earnings and deductions for taxes, social security and other contributions, computes amounts due, and records details manually or using computerised systems. He/she prepares and verifies workers' pay statements and summaries of payments and deductions, and distributes employee payments and wage packets by cheque or electronic means.

Example(s) of job classified under this code:

- Paymaster

Example(s) of job not classified under this code:

- Human resource (HR) clerk, see 41102
- Ledger/Accounts clerk, see 43112

Occupation 43115 Billing clerk

Billing clerk prepares invoices and credit memos, issuing them to customers by all necessary means for services rendered or for delivery or shipment of goods. He/she issues invoices to customers and monthly customer statements, updates customer files, processes credit memos, enters and submits invoices, etc.

Example(s) of job classified under this code:

- Invoice clerk
- Payment processing clerk
- Payment settlement clerk

Example(s) of job not classified under this code:

- Payment entry clerk, see 41320
- Securities settlement clerk, see 43123

Occupation 43116 Procurement/Purchasing clerk

Procurement/Purchasing clerk compiles information and records to draw up purchase orders for procurement of materials and services. He/she prepares purchase orders for outsourced repair works and procurement, and checks the accuracy of invoices received in consultation with the purchasing departments. He/she also works with vendors to schedule shipping and delivery times, and keeps records and verifies current inventory levels to prevent inventory gaps.

Example(s) of job not classified under this code:

- Planning clerk (materials supply), see 43221
- Production planning clerk, see 43222

Occupation 43119 Accounting/Bookkeeping clerk n.e.c.

This group covers accounting/bookkeeping clerk not elsewhere classified.

Example(s) of job classified under this code:

- Cost clerk
- Tax clerk

Example(s) of job not classified under this code:

- Accounts clerk, see 43112
- Bank operations clerk, see 43121
- Finance clerk, see 43129

Unit Group 4312 Finance and Insurance Clerks

Finance and insurance clerks perform clerical tasks relating to the transactions of insurance establishments, banks and other financial establishments.

Tasks include:

- processing insurance enrolments, cancellations, claims transactions, policy changes and payments
- calculating totals, averages, percentages and other details and presenting them in the required tabular form
- preparing financial documents and calculating interest or brokerage charges and stamp duties payable
- maintaining records of bonds, shares and other securities bought or sold on behalf of clients or employer

Occupation(s) in this Unit Group:

- 43121 Bank operations clerk
- 43122 Insurance/Underwriting clerk
- 43123 Securities clerk
- 43129 Finance/Insurance clerk n.e.c.

Occupation 43121 Bank operations clerk

Bank operations clerk performs clerical tasks relating to the transactions of banks. He/she may interview applicants to obtain personal and financial data, determine credit worthiness, process applications, and notify customers of acceptance or rejection of credit.

Example(s) of job classified under this code:

- Bank vault clerk

Example(s) of job not classified under this code:

- Safe deposit clerk, see 41109

Occupation 43122 Insurance/Underwriting clerk

Insurance/Underwriting clerk performs general clerical and administrative duties related to insurance and underwriting in an insurance company, other service institution, for a self-employed insurance agent or broker or for a government institution. He/she offers assistance and provides information about insurance to customers and manages the paperwork of insurance agreements.

Example(s) of job classified under this code:

- Superannuation clerk

Example(s) of job not classified under this code:

- Insurance underwriter, see 24160
- Insurance broker, see 33211
- Insurance sales agent, see 33211

Occupation 43123 Securities clerk

Securities clerk keeps records of securities such as stocks, bonds, trust deeds, and mortgages held as collateral by a financial company. He/she examines incoming or outgoing collateral and records data such as ownership, value and date of redemption, verifies daily market value of collateral and changes records to show fluctuation. He/she also reviews loan ledger and returns collateral to customers as accounts are paid.

Example(s) of job classified under this code:

- Bonds clerk
- Brokerage clerk
- Securities settlement clerk

Example(s) of job not classified under this code:

- Securities dealer, see 24141
- Securities broker, see 24151
- Trade broker, see 24361
- Payment settlement clerk, see 43115

Occupation 43129 Finance/Insurance clerk n.e.c.

This group covers finance/insurance clerk not elsewhere classified.

Example(s) of job classified under this code:

- Collateral clerk

- Credit clerk
- Finance clerk
- Mortgage clerk

Example(s) of job not classified under this code:

- Accounts clerk, see 43112
- Statistical clerk, see 43141

Unit Group 4314 Statistical Clerks

Statistical clerks obtain, code, compile and compute statistical or actuarial data. They use various methods to obtain information including interviewing people and recording their responses to survey and market research questions.

Tasks include:

- contacting individuals by telephone or in person and explaining the purpose of the interview
- asking questions following the outlines of questionnaires and surveys
- recording responses on paper or entering responses directly into a computer database through computer-assisted interviewing systems
- identifying and resolving inconsistencies in responses
- providing feedback to survey sponsors concerning problems in obtaining valid data
- obtaining and compiling statistical or actuarial data based on routine or special sources of information
- calculating totals, averages, percentages and other details and presenting them in the required tabular form

Occupation(s) in this Unit Group:

- 43141 Statistical clerk
- 43142 Enumerator/Market research interviewer

Occupation 43141 Statistical clerk

Statistical clerk compiles statistical records based on routine or special sources of information. He/she obtains the information required from survey forms, reports and publications, or by examining financial records and other documents. He/she also checks the information for consistency and completeness, collates data obtained or arranges it for processing, calculates and presents the data as required. He/she may prepare and supply factual information to assist in interpretation of the statistical data compiled.

Example(s) of job classified under this code:

- Coding clerk
- Statistical assistant
- Statistical coder

Example(s) of job not classified under this code:

- Actuary, see 21213
- Statistician, see 21221
- Statistical officer, see 21231
- Actuarial officer, see 21239
- Data processing control clerk, see 43151

Occupation 43142 Enumerator/Market research interviewer

Enumerator/Market research interviewer conducts field surveys to secure data through the personal contact method to facilitate the study of social, economic, labour, demographic or any other subject requiring reliable information. He/she may keep in close touch with the authority requiring the data to ensure accurate collection and render a report at the end of each survey.

Example(s) of job classified under this code:

- Public opinion collector
- Telephone surveyor

Example(s) of job not classified under this code:

- Telephone operator, see 42230
- Contact centre information clerk, see 42246

Unit Group 4315 Computer Operations Clerks

Computer operations clerks prepare production schedules for computer operations and keep records of computer operations.

Tasks include:

- preparing day-to-day production schedules for computer operations
- preparing job flows, including files required, for submission to the computer

Occupation(s) in this Unit Group:

- 43151 Data processing control clerk
- 43159 Computer operations clerk n.e.c.

Occupation 43151 Data processing control clerk

Data processing control clerk prepares production schedules for computer operations and keeps records of computer operations.

Example(s) of job classified under this code:

- Production coordinator (data processing)
- Scheduler (computer operations)

Example(s) of job not classified under this code:

- Data entry clerk, see 41320
- Coding clerk, see 43141
- Production planning clerk, see 43222

Occupation 43159 Computer operations clerk n.e.c.

This group covers computer operations clerk not elsewhere classified.

MINOR GROUP 432 MATERIAL-RECORDING AND TRANSPORT CLERKS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 4321 Stock Clerks
- 4322 Production Clerks
- 4323 Transport Clerks

Unit Group 4321 Stock Clerks

Stock clerks maintain records of goods produced and production materials received, weighed, issued, dispatched or put into stock.

Tasks include:

- arranging and controlling receipt and dispatch of goods and keeping relevant records
- maintaining stock records, verifying issue of goods, estimating needs and making requisitions of new stocks
- receiving, storing and issuing tools, spare parts, or various equipment and maintaining relevant records
- weighing goods received, issued, produced, or dispatched and maintaining relevant records
- compiling inventories of furniture and other items received for storage

Occupation(s) in this Unit Group:

- 43211 Stock records clerk
- 43212 Storekeeper
- 43219 Stock clerk n.e.c.

Occupation 43211 Stock records clerk

Stock records clerk maintains stock records and controls the amount of stock held by an organisation. He/she examines delivery and issues vouchers and makes necessary entries in records. He/she also calculates stock held in various departments, examines production, sales or other records and estimates future needs. He/she may be in charge of stocks and also periodically check records against stocks held and check inventories kept by other workers.

Example(s) of job classified under this code:

- Inventory clerk (stock control)
- Stock control clerk
- Store records assistant

Example(s) of job not classified under this code:

- Storekeeper, see 43212

Occupation 43212 Storekeeper

Storekeeper receives, stores and issues tools, merchandise, equipment or other goods and maintains relevant records. He/she checks incoming goods against demand notes, vouchers or other documents, notes damages or deficiencies and enters the details of goods received in storeroom ledgers or on record cards. He/she also ensures that goods are placed in the correct position in store, marking them with identifications as required, issues stock and makes requisitions for replacements according to instructions or on own initiative and periodically checks stock against stock records and submits reports.

Example(s) of job classified under this code:

- Warehouse storekeeper

Example(s) of job not classified under this code:

- Inventory clerk (stock control), see 43211

Occupation 43219 Stock clerk n.e.c.

This group covers stock clerk not elsewhere classified.

Example(s) of job classified under this code:

- Freight receiving clerk
- Receiving and despatching clerk
- Order checker

Unit Group 4322 Production Clerks

Production clerks compute quantities of materials required at specified dates for manufacturing, construction and similar production programmes, and prepare and check production operation schedules.

Tasks include:

- computing quantities, qualities and types of materials required by production programme
- preparing production requirements schedules, ensuring that materials are available when needed and keeping relevant records
- preparing or assisting in the preparation of production operation schedules on the basis of customers' orders and production capacity and performance
- verifying stocks, arranging deliveries and investigating delays
- recording and coordinating the flow of work and materials between departments

Occupation(s) in this Unit Group:

- 43221 Material planning clerk
- 43222 Production planning clerk
- 43229 Production clerk n.e.c.

Occupation 43221 Material planning clerk

Material planning clerk computes quantities of materials required for the production or construction programme of an undertaking, ascertains stocks, schedules deliveries and verifies the execution of orders. He/she also prepares schedules of requirements of materials at various dates during a specified period, verifies the availability of stocks, arranges deliveries, investigates delays and initiates remedial actions. He/she may analyse drawings to estimate the materials required.

Example(s) of job classified under this code:

- Material control clerk
- Planning clerk (materials supply)
- Schedule clerk (material planning)

Example(s) of job not classified under this code:

- Procurement clerk, see 43116

Occupation 43222 Production planning clerk

Production planning clerk prepares or assists in preparing production operations schedules, using data derived from customers' orders and information on production capacity and performance. He/she keeps records of machine performance, production rates and outputs, surveys progress of production by examining work tickets or other progress control data, amends, or proposes amendment of, production operations schedule in the light of actual production performance and prepares progress reports for management.

Example(s) of job classified under this code:

- Schedule clerk (production planning)

Example(s) of job not classified under this code:

- Purchasing clerk, see 43116
- Production coordinator (data processing), see 43151

Occupation 43229 Production clerk n.e.c.

This group covers production clerk not elsewhere classified.

Example(s) of job classified under this code:

- Service order expediter

Unit Group 4323 Transport Clerks

Transport clerks keep records of operational aspects and coordinate the timing of train, road, sea and air passenger and freight transport and prepare reports for management.

Tasks include:

- keeping records of operational aspects and coordinating the timing of passenger and freight transport
- directing train routings within a division or zone of a railway system and keeping related records
- directing, controlling and keeping records of freight handling at a railway yard
- coordinating and keeping records of operational activities concerning road transport, such as allocation and scheduling of vehicles and drivers, loading and unloading of vehicles and storage of goods in transit
- coordinating and keeping records of operational activities concerning air transport of passengers and freight, such as passenger lists and freight manifests
- preparing reports for management

Occupation(s) in this Unit Group:

- 43231 Shipping clerk

- 43232 Land transport clerk
- 43233 Air transport clerk
- 43239 Transport clerk n.e.c.

Occupation 43231 Shipping clerk

Shipping clerk controls or participates in the dispatch and receipts of goods and keeps records of shipments. He/she examines the particulars of goods to be dispatched, studies schedules and cost tables and decides on the best method of transportation. He/she provides assistance and liaises with customers, logistics operators and customs to plan, track and clear shipments. He/she provides assistance in preparing export and import documentation and supports the processing of logistics insurance. He/she may check incoming goods against bills of lading, vouchers and other documents, notes damage or deficiencies and arrange delivery.

Example(s) of job classified under this code:

- Import export administrative assistant

Example(s) of job not classified under this code:

- Freight receiving clerk, see 43219

Occupation 43232 Land transport clerk

Land transport clerk keeps records of operational aspects and coordinates the timing of train, road passenger and freight transport. He/she directs train routings of railway system. He/she allocates and schedules vehicles and drivers, and loading and unloading of vehicles. He/she also supports the execution of transportation operations and activities including transport fleet management documentation, receives and communicates schedules to transport operators and cargo loaders, and gathers general information from customers to support transport order fulfilments.

Example(s) of job classified under this code:

- Bus dispatcher
- Land transport traffic coordinator

Occupation 43233 Air transport clerk

Air transport clerk coordinates and keeps records of operational activities concerning air transport of passengers and freight, such as passenger lists and freight manifests and also prepares reports for management.

Example(s) of job classified under this code:

- Air cargo clerk

- Air freight dispatcher
- Aircraft scheduling clerk

Occupation 43239 Transport clerk n.e.c.

This group covers transport clerk not elsewhere classified.

Example(s) of job classified under this code:

- Parcel clerk (railway)
- Routing clerk (freight)
- Traffic clerk (freight)

SUB-MAJOR GROUP 44 OTHER CLERICAL SUPPORT WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 441 OTHER CLERICAL SUPPORT WORKERS

MINOR GROUP 441 OTHER CLERICAL SUPPORT WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 4411 Library Clerks
- 4412 Mail Carriers and Sorting Workers
- 4417 Legal Clerks
- 4419 Clerical Support Workers Not Elsewhere Classified

Unit Group 4411 Library Clerks

Library clerks issue and receive library materials, sort and shelve books, sound and vision recordings, periodicals, journals, magazines and newspapers and provide general library information to library users.

Tasks include:

- issuing and receiving library books and other materials
- re-shelving books and other library materials
- performing clerical activities such as manual and electronic filing, word processing and occasional typing
- maintaining journal subscriptions

- assisting library users in accessing basic library materials and making inter-library loans
- maintaining library records relating to the acquisition, issue and return of books and other materials

Occupation(s) in this Unit Group:

- 44110 Library clerk

Occupation 44110 Library clerk

Library clerk issues and receives library materials, sorts and shelves books, sound and vision recordings, periodicals, journals, magazines and newspapers and provides general library information to library users.

Example(s) of job classified under this code:

- Book loan clerk
- Library assistant
- Library cataloguing clerk

Example(s) of job not classified under this code:

- Librarian, see 26221
- Library officer, see 34331
- Office clerk, see 41101
- Library attendant, see 96251

Unit Group 4412 Mail Carriers and Sorting Workers

Mail carriers and sorting workers perform sorting, recording, delivery and other duties in connection with mail services from post offices and their contractors.

Tasks include:

- performing mail-handling duties in public post offices
- sorting and delivering mail to private houses and businesses
- providing delivery confirmation records when requested by the client

Notes:

Mail refers to letters, packages etc. that are sent or delivered by means of postal system or court orders and processes such as notices, summons and subpoenas.

Occupation(s) in this Unit Group:

- 44121 Postal service supervisor

- 44122 Postman
- 44123 Process server
- 44129 Mail carrier/sorting worker n.e.c.

Occupation 44121 Postal service supervisor

Postal service supervisor supervises and coordinates mail collection, sorting and distribution services, for a defined geographical area. He/she plans mail routes, collection points and collection and delivery schedules and coordinates local with national mail distribution services. He/she supervises and coordinates the activities of postal workers engaged in collecting and receiving incoming mail, checking and cancelling postage paid, sorting letters, packages and parcels, recording registered mail, dispatching and delivering sorted mail and performing related tasks.

Example(s) of job classified under this code:

- Inspector of postmen
- Mail supervisor

Example(s) of job not classified under this code:

- Courier service supervisor, see 40000

Occupation 44122 Postman

Postman delivers mail along a regular route to homes and business establishments after sorting it according to streets and street numbers. He/she delivers registered mail and obtains acknowledgements, collects associated charges, and completes any necessary paper work. He/she also collects mail from pillar-boxes and assists in sorting it for dispatch to other post offices.

Example(s) of job classified under this code:

- Mailman

Occupation 44123 Process server

Process server serves court orders and processes such as notices, summons and subpoenas. He/she receives papers to be served from magistrates or accredited officers. He/she locates the person to be served, delivers documents, and records time and place of delivery.

Example(s) of job classified under this code:

- Notice server
- Summons server

Occupation 44129 Mail carrier/sorting worker n.e.c.

This group covers mail carrier/sorting worker not elsewhere classified.

Example(s) of job classified under this code:

- Mail sorter (manual)

Unit Group 4417 Legal Clerks

Legal clerks perform support functions in courts of law or in law offices, and duties mostly connected with the keeping of office and library records with aspects of legal matters.

Tasks include:

- documenting court proceedings and judgements
- serving statements of claims, summonses, warrants, subpoenas and other court orders
- preparing legal documents including trial briefs, pleadings, appeals, wills and contracts; and preparing papers summarising legal positions, or setting out conditions of loans or insurance
- preparing documents relating to transfer of real estate, stocks or other matters requiring formal registration

Occupation(s) in this Unit Group:

- 44170 Legal clerk

Occupation 44170 Legal clerk

Legal clerk performs support functions in courts of law or in law offices, and duties mostly connected with the keeping of office and library records with aspects of legal matters.

Example(s) of job classified under this code:

- Clerk of court
- Conveyancing clerk

Example(s) of job not classified under this code:

- Solicitor (practising), see 26111
- Conveyance executive, see 34110
- Court reporter, see 41202

Unit Group 4419 Clerical Support Workers Not Elsewhere Classified

This unit group covers clerical support workers not elsewhere classified.

Tasks include:

- converting information into codes and classifying information by codes for data-processing purposes
- comparing proofs of texts and related materials prepared for printing with original material, correcting errors and marking texts for printer according to the established rules
- addressing circulars and envelopes by hand
- receiving customers' orders for classified advertising, writing and editing copy, calculating advertising rates and billing customers
- assisting in the preparation of periodicals, advertisements, catalogues, directories and other material for publication
- reading newspapers, magazines, press releases and other publications to locate and file articles of interest to staff and clients

Occupation(s) in this Unit Group:

- 44191 Proofreading clerk
- 44199 Other clerical support worker n.e.c.

Occupation 44191 Proofreading clerk

Proofreading clerk reads draft copies and proofs, detects errors and marks corrections to grammar, typing and composition. He/she also reads corrected copies or proofs to ensure that all corrections have been made.

Example(s) of job classified under this code:

- Copy reader

Occupation 44199 Other clerical support worker n.e.c.

This group covers other clerical support worker not elsewhere classified.

Example(s) of job classified under this code:

- Advertising clerk
- Letter writer

MAJOR GROUP 5 SERVICES AND SALES WORKERS

Occupation(s) in this Major Group are classified into the following Sub-major Group(s):

- 51 PERSONAL SERVICES WORKERS
- 52 SALES WORKERS
- 53 PERSONAL CARE WORKERS
- 54 PROTECTIVE SERVICES WORKERS
- 59 SERVICES WORKERS NOT ELSEWHERE CLASSIFIED

SUB-MAJOR GROUP 51 PERSONAL SERVICES WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 511 TRAVEL ATTENDANTS, CONDUCTORS AND GUIDES
- 512 COOKS
- 513 WAITERS AND BARTENDERS
- 514 HAIRDRESSERS, BEAUTICIANS AND RELATED WORKERS
- 515 HOUSEKEEPERS AND RELATED WORKERS
- 517 BOOKMAKERS, CROUPIERS AND RELATED GAMING WORKERS
- 519 PERSONAL SERVICES WORKERS NOT ELSEWHERE CLASSIFIED

MINOR GROUP 511 TRAVEL ATTENDANTS, CONDUCTORS AND GUIDES

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5111 Travel Attendants and Stewards
- 5112 Transport Service Inspectors and Related Workers
- 5113 Tour and Related Guides

Unit Group 5111 Travel Attendants and Stewards

Travel attendants and stewards ensure the comfort and safety of passengers, serve meals and beverages and render personal services, usually on aircraft and on-board ships. They may plan and coordinate housekeeping and social activities on ships.

Tasks include:

- greeting passengers entering aircraft or ship, checking tickets or boarding passes, and directing them to their seats or berths

- announcing, explaining and demonstrating safety and emergency procedures, such as the use of oxygen masks, seat belts and life jackets
- assembling and serving pre-prepared meals and beverages
- selling duty-free and other goods
- taking care of general needs and comfort of passengers, answering inquiries, and keeping cabins clean and tidy
- directing and assisting passengers and following prescribed procedures in the event of an emergency, such as evacuating a plane following an emergency landing
- verifying that first aid kits and other emergency equipment are in working order
- administering first aid to passengers in distress
- attending pre-flight briefings concerning weather, altitudes, routes, emergency procedures, crew coordination, lengths of flights, food and beverage services offered, and numbers of passengers
- preparing passengers and aircraft for take-off and landing
- determining special assistance needs of passengers such as small children, the elderly or disabled persons

Occupation(s) in this Unit Group:

- 51111 Chief steward
- 51112 Cabin attendant/steward

Occupation 51111 Chief steward

Chief steward plans, coordinates and supervises the activities of crew engaged in housekeeping and meal serving on aircraft or onboard ship. He/she receives checks and issues aircraft or ship stores, such as linen, foodstuffs, galley supplies and equipment. He/she may supervise chief cook, baker, mess-room, cabin and deck stewards, if serving onboard ship.

Example(s) of job classified under this code:

- Aircraft's chief steward
- Ship's chief steward

Example(s) of job not classified under this code:

- Air transport service supervisor, see 31571
- Hotel chief steward, see 51502

Occupation 51112 Cabin attendant/steward

Cabin attendant/steward provides personal services to ensure the security and comfort of passengers on aircraft and onboard ship. He/she greets passengers, verifies tickets, and

directs passengers to assigned seats or cabins. He/she directs and assists passengers in emergency procedures, such as evacuating a plane or vessel in an emergency. He/she also announces and demonstrates safety and emergency procedures, such as the use of oxygen masks, seat belts, and life jackets. He/she prepares and serves in-flight meals and administers in-flight sales activities, if serving on aircraft.

Example(s) of job classified under this code:

- Air hostess (aircrew)
- Flight steward
- Ship cabin's attendant
- Ship's steward

Unit Group 5112 Transport Service Inspectors and Related Workers

Transport service inspectors and related workers check and issue tickets and ensure the safety and comfort of passengers on trains, trams, buses and other public transport vehicles. This unit group also covers workers that perform other service related tasks in the transportation industry such as broadcasting announcements and ensuring service standards.

Tasks include:

- collecting and issuing tickets, passes or fares, and checking the validity of tickets issued previously
- attending to sleeping-cars and their occupants on passenger trains
- providing assistance with boarding, seating and luggage as required, especially to elderly, sick or injured people
- opening and closing doors for passengers
- performing equipment safety checks prior to departure signalling to drivers to stop or proceed
- greeting passengers boarding transportation equipment and announcing routes and stops
- ensuring that safety regulations are respected
- responding to passengers' requests and complaints and providing information about stops and connections
- taking appropriate action in case of emergencies or accidents

Occupation(s) in this Unit Group:

- 51121 Rail station service assistant
- 51122 Ticket inspector
- 51129 Transport service inspector and related worker n.e.c.

Occupation 51121 Rail station service assistant

Rail station service assistant provides customer service such as information and mobility assistance to the commuters. He/she conducts security patrols in trains and reports train operational status and reacts to irregularities, including rail incidents and/or accidents in passenger trains while on duty. He/she also provides accurate and up-to-date information on train arrival and departure times, train connections, and helps customers plan their travels.

Example(s) of job classified under this code:

- Train station service assistant

Example(s) of job not classified under this code:

- Train service supervisor, see 31572
- MRT operations officer (traffic), see 31596

Occupation 51122 Ticket inspector

Ticket inspector checks tickets of passengers on board a moving train or bus within designated areas. He/she makes surprise checks of tickets issued to passengers, ensures proper fare has been paid and that tickets are issued. He/she also reports fare irregularities for disciplinary action.

Occupation 51129 Transport service inspector and related worker n.e.c.

This group covers transport service inspector and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Bus conductor
- Ferryboat conductor
- Hovercraft conductor
- Time keeper (transport)

Unit Group 5113 Tour and Related Guides

Tour and related guides accompany individuals or groups on trips, sightseeing tours and excursions and on tours of places of interest such as historical sites, industrial establishments and theme parks. They describe points of interest and provide background information on interesting features.

Tasks include:

- escorting and guiding tourists on cruises and sightseeing tours
- escorting visitors through places of interest such as museums, exhibitions, theme parks, factories and other industrial establishments

- describing and providing information on points of interest and exhibits and responding to questions
- conducting educational activities for school children
- monitoring visitors' activities to ensure compliance with establishment or tour regulations and safety practices
- greeting and registering visitors and tour participants, and issuing any required identification badges or safety devices
- distributing brochures, showing audio-visual presentations, and explaining procedures and operations at tour sites
- providing for physical safety of groups, and performing activities such as providing first aid and directing emergency evacuations
- resolving any problems with tour itineraries, service or accommodation

Occupation(s) in this Unit Group:

- 51131 Tour guide
- 51132 Attractions guide

Occupation 51131 Tour guide

Tour guide escorts groups of tourists and others on sightseeing tours within a city, or to places of historical or general interest, such as ancient monuments, museums and picture galleries, giving brief commentary on each. He/she monitors visitors' activities to ensure compliance with establishment or tour regulations and safety practices. He/she also provides directions and other pertinent information to visitors.

Example(s) of job classified under this code:

- Sightseeing guide
- Tour leader
- Tourist guide

Example(s) of job not classified under this code:

- Travel consultant, see 42210

Occupation 51132 Attractions guide

Attractions guide assists visitors through places of interest, such as theme parks, nature parks, art galleries, museums, monuments and public places. He/she helps visitors to interpret natural heritage and provides information and guidance to tourists in parks such as wildlife and nature parks.

Example(s) of job classified under this code:

- Art gallery guide
- Museum guide
- Nature guide
- Theme park guide

Example(s) of job not classified under this code:

- Attractions manager, see 14322

MINOR GROUP 512 COOKS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5120 Cooks

Unit Group 5120 Cooks

Cooks plan, organise, prepare and cook meals, according to recipes or under the supervision of chefs, in hotels, restaurants and other eating places, on board ships, on passenger trains and in private households.

Tasks include:

- planning meals, preparing and cooking foodstuffs
- planning, supervising and coordinating the work of kitchen helpers
- checking the quality of food and ensuring appropriate portioning and serving size for waste control
- assembling ingredients and/or kitchen equipment prior to preparation of menu dishes
- weighing, measuring and mixing ingredients according to recipes and personal judgement
- regulating the temperature of ovens, grills, roasters and other cooking equipment
- inspecting and cleaning the kitchen, kitchen equipment and serving areas to ensure safe and sanitary food handling practices
- operating large–volume cooking equipment such as grills, deep-fat fryers, or griddles

Notes:

Operators of small cafes, restaurants and bars for whom the management and supervision of staff is not a significant component of the work are classified in Unit Groups 5120 ‘Cooks’, 5131 ‘Waiters’ or 5132 ‘Bartenders and Baristas’, depending on the main tasks performed.

Occupation(s) in this Unit Group:

- 51201 Cook
- 51202 Senior cook

Occupation 51201 Cook

Cook prepares, seasons, bakes and cooks dishes such as soups, meats, vegetables, or desserts in restaurants according to defined Standard Operating Procedures (SOPs) or senior cook's requirements, and in a timely manner. He/she ensures appropriate portioning and serving size for waste control. He/she may order supplies, keep records and accounts, price items on menu, or plan menu. He/she may also supervise the kitchen assistants' work outputs on a daily basis (i.e. ingredient preparation, packaging) and ensure that workstations and cooking equipment are cleaned and maintained on a regular basis.

Example(s) of job classified under this code:

- Assistant cook
- Cafeteria cook
- Central kitchen cook
- Commis cook 2
- Hotel cook

Example(s) of job not classified under this code:

- Chef (excluding pastry chef), see 34341
- Commis cook 1, see 51202
- Kitchen assistant, see 94101
- Cafeteria assistant, see 94102
- Fast food cook, see 94103

Occupation 51202 Senior cook

Senior cook directly supervises and coordinates activities of workers engaged in preparing and serving food. He/she oversees one or more sections/stations of the kitchen, such as pastry, butchery, fish, sauces, and vegetables. This includes preparing, cooking, plating and presenting dishes within his/her speciality. He/she manages and trains demi-chef de parties or commis working with him/her and helps the sous chef and head chef to develop new dishes and menus. He/she also monitors portion and waste control to maintain profit margins.

Example(s) of job classified under this code:

- Chef de partie
- Commis cook 1
- Demi chef
- Line cook
- Station chef

Example(s) of job not classified under this code:

- Chef (excluding pastry chef), see 34341
- Commis cook 2, see 51201

MINOR GROUP 513 WAITERS AND BARTENDERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5131 Waiters
- 5132 Bartenders and Baristas
- 5133 Bar and Lounge Hostesses
- 5139 Waiters and Bartenders Not Elsewhere Classified

Unit Group 5131 Waiters

Waiters serve food and beverages in commercial dining and drinking places, clubs, institutions and canteens, on board ships and on passenger trains.

Tasks include:

- setting tables with clean linen, cutlery, crockery and glassware
- greeting customers and presenting them with menus and beverage lists
- advising on food and beverage choices
- taking orders for food and drinks and passing order to kitchen or bar staff manually or through Point of Sale (POS) systems and/or other software
- serving food and beverages to clients at tables
- clearing tables and returning dishes and cutlery to kitchen
- presenting bills, accepting payment and operating POS machines and cash registers
- taking reservations over phone

Notes:

Operators of small cafes, restaurants and bars for whom the management and supervision of staff is not a significant component of the work are classified in Unit Groups 5120 ‘Cooks’, 5131 ‘Waiters’ or 5132 ‘Bartenders and Baristas’, depending on the main tasks performed.

Occupation(s) in this Unit Group:

- 51311 Captain waiter/Waiter supervisor
- 51312 Waiter
- 51313 Sommelier

Occupation 51311 Captain waiter/Waiter supervisor

Captain waiter/Waiter supervisor manages the food and beverage service in a hospitality outlet or unit. He/she oversees customer-facing operations and coordinates all actions involving customers such as welcoming guests, ordering, responding to enquiries or complaints, delivering the food and beverages and supervising financial transactions. He/she also trains and supervises staff working the floor, assigning their work stations and resolving work-related problems. He/she oversees reservations and ensures the shift runs smoothly and may perform administrative tasks such as managing payroll and writing budgets. He/she may also ensure compliance with regulations or establishment's service protocols/standards.

Example(s) of job classified under this code:

- Food services crew leader
- Food services floor manager
- Head waiter
- Maitre d'hotel

Occupation 51312 Waiter

Waiter provides guests with food and drinks as requested in restaurant, bar, hotel or other hospitality outlets. He/she prepares tables, serves food or beverages and takes payments. He/she presents guests with the menu, takes orders, answers questions on meal items and makes food recommendations when requested. He/she may take reservations over phone and/or perform cashiering duties.

Example(s) of job classified under this code:

- Banquet server
- Dining car attendant (railway)
- Food services service crew
- Mess steward

Occupation 51313 Sommelier

Sommelier makes wine suggestions to go with particular types of food, based on their knowledge of wine pairing, or suggests wines based on customers' taste preferences. He/she creates wine lists, orders wines, and maintains and rotates wine stock. He/she also trains waiting staff on wine, often by conducting wine tastings.

Example(s) of job classified under this code:

- Demi sommelier
- Head sommelier

- Wine specialist
- Wine steward
- Wine waiter (commis sommelier)

Unit Group 5132 Bartenders and Baristas

Bartenders and baristas prepare, mix and serve alcoholic and non-alcoholic drinks, including coffee-based drinks, directly to customers over a bar or counter or through waiters.

Tasks include:

- taking beverage orders from serving staff or directly from patrons
- preparing and serving alcoholic and non-alcoholic drinks at a bar
- washing used glassware, cleaning and maintaining bar service areas, tea and coffee-making areas and equipment such as espresso machines
- collecting payment for sales, operating cash registers and balancing cash receipts
- tapping kegs and attaching supply lines
- assisting in keeping bar properly stocked and arranging bottles and glasses
- checking identification of customers to verify age requirements for purchase of alcohol
- mixing ingredients to prepare cocktails and other drinks
- serving snacks or other food items to customers at the bar

Notes:

Operators of small cafes, restaurants and bars for whom the management and supervision of staff is not a significant component of the work are classified in Unit Groups 5120 ‘Cooks’, 5131 ‘Waiters’ or 5132 ‘Bartenders and Baristas’, depending on the main tasks performed.

Occupation(s) in this Unit Group:

- 51321 Bartender/Mixologist
- 51322 Barista

Occupation 51321 Bartender/Mixologist

Bartender/Mixologist serves alcoholic and non-alcoholic drinks at a bar. He/she mixes various ingredients to make standard or special types of drinks according to orders. He/she may receive payment, may take charge of bar, requisition supplies and keep bar stock records. He/she may also serve snacks and may wash and dry glasses. He/she also sets up the bar area at the start of a shift, fills glassware cabinets, loads ice machines, and removes any clutter left by the previous shift.

Example(s) of job classified under this code:

- Barman
- Bartender supervisor

Example(s) of job not classified under this code:

- Waiter, see 51312

Occupation 51322 Barista

Barista prepares specialised types of coffee, according to their organisation's unique recipes and procedures, using professional equipment in a cafe, bar, hotel or other hospitality outlets. He/she serves the drinks along with pastries and cookies. He/she keeps the serving area neat and clean, keeps equipment and services fully operational by following operating instructions. He/she also troubleshoots breakdowns, and maintains inventories by replenishing coffee bean/tea bag supplies, pastries and cookies for coffee bar.

Example(s) of job classified under this code:

- Barista supervisor
- Head barista
- Senior barista

Example(s) of job not classified under this code:

- Waiter, see 51312

Unit Group 5133 Bar and Lounge Hostesses

Bar and lounge hostesses accompany and entertain guests in various nightspots, nightclubs, karaoke lounges and discotheques.

Tasks include:

- welcoming clients to a nightclub and ensuring that they are entertained well
- accompanying and entertaining guests through various means such as drinking and singing
- serving alcoholic drinks
- providing companionship

Occupation(s) in this Unit Group:

- 51330 Bar/Lounge hostess

Occupation 51330 Bar/Lounge hostess

Bar/Lounge hostess serves beverages to patrons seated at tables in bar or restaurant. He/she takes order from customers, serves drinks at tables, presents bill, collects money and makes change. He/she may dance with patrons if requested.

Example(s) of job classified under this code:

- Bar/Lounge hostess supervisor
- Nightclub hostess

Example(s) of job not classified under this code:

- Social escort, see 51991
- Dance hostess, see 51991

Unit Group 5139 Waiters and Bartenders Not Elsewhere Classified

This unit group covers waiters and bartenders not elsewhere classified.

Tasks include:

- setting up and rearranging tables and cutlery
- presentation of food, checking and ensuring quality of food in terms of hygiene and taste

Occupation(s) in this Unit Group:

- 51390 Waiter/Bartender n.e.c.

Occupation 51390 Waiter/Bartender n.e.c.

This group covers waiter/bartender not elsewhere classified.

Example(s) of job classified under this code:

- Busboy
- Busser
- Food checker (catering services)
- Food services runner

MINOR GROUP 514 HAIRDRESSERS, BEAUTICIANS AND RELATED WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5141 Hairdressers, Barbers and Related Workers
- 5142 Beauticians and Related Workers

- 5149 Wellness Related Workers Not Elsewhere Classified

Unit Group 5141 Hairdressers, Barbers and Related Workers

Hairdressers, barbers and related workers cut, style, colour, straighten and permanently wave hair, shave or trim facial hair and treat scalp conditions.

Tasks include:

- cutting, washing, tinting and waving hair
- shaving or trimming beards and moustaches
- giving scalp treatment
- providing advice on hair care, beauty products and hairstyles
- styling hair into dreadlocks and braids and adding hair extensions
- arranging appointments and collecting payments
- cleaning work areas and sanitising instruments

Occupation(s) in this Unit Group:

- 51411 Hair stylist/Hairdresser
- 51412 Barber
- 51419 Hairdresser/Barber and related worker n.e.c.

Occupation 51411 Hair stylist/Hairdresser

Hair stylist/Hairdresser offers beauty services such as cutting, colouring, bleaching, permanent waving and styling clients' hair. He/she provides customised services to clients on hairstyle preferences. He/she also provides hair and scalp treatments and hair washing services.

Example(s) of job classified under this code:

- Coiffeur
- Ladies' hairdresser

Occupation 51412 Barber

Barber cuts, trims, tapers and styles men's hair. He/she also removes facial hair by shaving the specific area and uses tools such as scissors, clippers, razors and combs. He/she may offer additional services like shampooing, styling, colouring and performing scalp massages.

Example(s) of job classified under this code:

- Men’s hairdresser

Occupation 51419 Hairdresser/Barber and related worker n.e.c.

This group covers hairdresser/barber and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Hair consultant
- Hair therapist
- Trichologist
- Wig dresser

Unit Group 5142 Beauticians and Related Workers

Beauticians and related workers give facial and body beauty treatments, apply cosmetics and makeup and give other kinds of treatment to individuals in order to improve their appearance.

Tasks include:

- cleaning and applying creams, lotions and related products to face and parts of body
- applying makeup to clients of a beauty parlour or to actors and other performers
- cleaning, shaping and polishing finger and toe-nails and treating minor ailments of the human foot such as corns, calluses or deformed toe-nails
- performing manicures and pedicures including decorative nail art, application of artificial nails, nail repair and other specialised hand and foot treatment
- using waxing, sugaring and depilation techniques to remove unwanted bodily hair
- providing advice and selling cosmetics and other beauty products
- arranging appointments and collecting payments

Occupation(s) in this Unit Group:

- 51421 Beautician
- 51422 Manicurist
- 51423 Makeup artist (stage/film/studio)

Occupation 51421 Beautician

Beautician examines customers’ skin and suggests suitable treatments including facial services, scalp treatments and the recommendation of cosmetic products.

Example(s) of job classified under this code:

- Cosmetologist

Occupation 51422 Manicurist

Manicurist cleans, shapes, and polishes finger or toe nails. He/she applies liquid polish-remover to take off old nail polish, files nails to shape, softens nail cuticles with lukewarm water and oil and pushes back cuticle of each nail with cuticle pusher. He/she trims cuticle with scissors or nippers, smooths edges with emery board, applies polish to nail with small brush and cleans and sterilises equipment.

Example(s) of job classified under this code:

- Nail technician
- Pedicurist

Occupation 51423 Makeup artist (stage/film/studio)

Makeup artist (stage/film/studio) applies makeup to faces of actors and other performers to improve or alter their appearances for studio or stage productions. He/she examines casting list and prepares wigs, beards and other materials needed. He/she uses grease paint, rouge, lipstick, face powder, wigs, and beards to impart the desired facial characteristics or expressions to the actor or actress. He/she also issues instruction to hairdresser as to the style of hairdressing required.

Example(s) of job classified under this code:

- Special effects makeup artist

Unit Group 5149 Wellness Related Workers Not Elsewhere Classified

This unit group covers wellness related workers not elsewhere classified.

Tasks include:

- discussing client needs, analysing characteristics and advising on treatment methods
- giving body massage
- advising clients on diet and exercise to assist in weight loss and slimming
- evaluating slimming processes and products
- receiving bookings, arranging appointments and maintaining client records
- cleaning work areas and sanitising instruments

Occupation(s) in this Unit Group:

- 51491 Masseur (non-medical)

- 51492 Slimming consultant
- 51499 Other wellness related worker n.e.c.

Occupation 51491 Masseur (non-medical)

Masseur (non-medical) massages customers and administers other body conditioning treatments for hygienic or remedial purposes in massage parlours, thermal bath-houses and similar establishments. He/she applies alcohol, lotions or other rubbing compounds, massages body, using such techniques as kneading, rubbing and stroking flesh to stimulate blood circulation or relax contracted muscles.

Example(s) of job classified under this code:

- Foot reflexologist
- Thai massage therapist

Example(s) of job not classified under this code:

- Massage therapist, see 32551

Occupation 51492 Slimming consultant

Slimming consultant assists clients in obtaining and maintaining a healthy lifestyle. He/she advises on how to lose weight by finding a balance between healthy food and exercise. He/she also sets goals together with clients and keeps track of progress during their regular meetings.

Occupation 51499 Other wellness related worker n.e.c.

This group covers other wellness related worker not elsewhere classified.

MINOR GROUP 515 HOUSEKEEPERS AND RELATED WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5150 Housekeepers and Related Workers

Unit Group 5150 Housekeepers and Related Workers

Housekeepers and related workers coordinate, schedule, and supervise housekeeping staff in hotels, service apartments, residential and other related premises.

Tasks include:

- training and supervising helpers and other housekeeping staff
- purchasing or controlling the purchase of supplies

- controlling storage and issue of supplies
- supervising general welfare and conduct of individuals in institutions
- assisting in cases of minor injury or illness by performing tasks such as taking temperature, giving medicine, putting on bandages
- performing other housekeeping duties
- sweeping or vacuum-cleaning, washing and polishing floors, furniture and other fixtures
- taking care of household pets and plants, receiving visitors, answering telephones, delivering messages and shopping for groceries
- preparing and cooking meals, setting and clearing tables and serving food and beverages
- making beds, cleaning bathrooms, supplying towels, soap and related items
- cleaning kitchens and generally helping with kitchen work, including dishwashing
- restocking mini-bars and replenishing items such as drinking glasses and writing equipment

Occupation(s) in this Unit Group:

- 51501 Housekeeper (hotel and related establishment)
- 51502 House steward
- 51503 Housekeeping matron
- 51504 Head butler (hotel and related establishment)
- 51505 Butler (hotel and related establishment)
- 51509 Housekeeper and related worker n.e.c.

Occupation 51501 Housekeeper (hotel and related establishment)

Housekeeper (hotel and related establishment) plans, organises and supervises the work of domestic staff in hotels, hospitals and other institutions. He/she trains, assigns duties to and supervises workers such as room stewards and stewardesses, laundry workers and seamstresses. He/she ensures prescribed standards of efficiency and cleanliness are met. He/she assists in purchasing supplies, examines condition of rooms, reports on repairs needed and suggests improvements, checks housekeeping accounts and takes inventories of bed linen and other articles. He/she may also prepare housekeeping budget.

Example(s) of job classified under this code:

- Housekeeping supervisor
- Linen room supervisor

Example(s) of job not classified under this code:

- Housekeeping attendant, see 91121

- Hotel cleaner, see 91122

Occupation 51502 House steward

House steward controls the purchase, storage and issue of foodstuffs and kitchen supplies and supervises and coordinates the work of pantry, storeroom and kitchen staff engaged in cooking in hotels, restaurants and clubs. He/she purchases food supplies and equipment and checks them for quality and quantity. He/she engages, trains and discharges workers, inspects kitchens and storerooms and ensures the prescribed standards of efficiency and cleanliness are maintained and comply with safety regulations. He/she administers controls to safeguard against theft and wastage, keeps records of purchases and issues, and approves invoices or bills for payment.

Example(s) of job classified under this code:

- Hotel chief steward
- Hotel steward

Example(s) of job not classified under this code:

- Chief steward, see 51111
- Domestic helper, see 91300

Occupation 51503 Housekeeping matron

Housekeeping matron organises and supervises the work of domestic staff and the general welfare and conduct of individuals in residential institutions. He/she ensures the prescribed standards of efficiency and cleanliness are met. He/she may also supervise the conduct and behaviour of residents, assist in cases of minor injury or illness by performing tasks such as preparing bandages, taking temperature and administering medicines.

Example(s) of job classified under this code:

- Dormitory supervisor
- Matron-housekeeper

Example(s) of job not classified under this code:

- Cleaning supervisor, see 91000

Occupation 51504 Head butler (hotel and related establishment)

Head butler (hotel and related establishment) oversees all aspects of the butler department, including capability development and people management. He/she coordinates and monitors butler tasks to ensure caring, thoughtful and dedicated personalised service is provided at all times in accordance with organisational procedures. He/she trains butlers in their performance and work related activities, conducts regular inspections of all butler areas

including occupied and non-occupied rooms and works with other operating departments, notably the front office, to manage VIP guest/customer requests.

Example(s) of job classified under this code:

- Butler manager
- Butler supervisor

Example(s) of job not classified under this code:

- Cleaning supervisor, see 91000

Occupation 51505 Butler (hotel and related establishment)

Butler (hotel and related establishment) provides personalised services to guests in hospitality establishment. He/she coordinates amenity deliveries, replenishes room amenities, attends to errands assigned by guests/customers, food and beverage related duties and household management in luxurious suites. He/she also handles in-room services such as in-room dining, laundry, garment pressing and shoe shine services.

Example(s) of job classified under this code:

- Personal butler

Occupation 51509 Housekeeper and related worker n.e.c.

This group covers housekeeper and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Camp supervisor
- Housekeeper (private service)

MINOR GROUP 517 BOOKMAKERS, CROUPIERS AND RELATED GAMING WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5170 Bookmakers, Croupiers and Related Gaming Workers

Unit Group 5170 Bookmakers, Croupiers and Related Gaming Workers

Bookmakers, croupiers and related gaming workers determine odds and receive and pay off bets on results of sporting or other events, or conduct games of chance in gambling establishments.

Tasks include:

- determining risks to decide odds and to hedge or refuse bets

- preparing and issuing lists of approximate odds
- distributing cards, rolling dice or spinning a roulette wheel
- explaining and interpreting operating rules of a gambling establishment
- announcing winning numbers, paying winners and collecting payments from losers

Occupation(s) in this Unit Group:

- 51701 Gaming supervisor
- 51702 Bookmaker/Croupier/Casino dealer and related gaming worker

Occupation 51701 Gaming supervisor

Gaming supervisor supervises and coordinates activities of workers in assigned gaming areas to provide service to patrons. He/she moves among tables and observes operations, to ensure that stations and games are covered for each shift. He/she explains and interprets operating rules of the house to patrons. He/she may address service complaints, handle and settle complaints of players, verify the pay outs from jackpots, reset slot machines after pay outs, make repairs or adjustments to slot machines or recommend removal of slot machines for repair and to report hazards and enforce safety rules.

Example(s) of job classified under this code:

- Casino shift manager
- Pit manager
- Slot supervisor

Example(s) of job not classified under this code:

- Cage/Count supervisor, see 52301

Occupation 51702 Bookmaker/Croupier/Casino dealer and related gaming worker

Bookmaker/Croupier/Casino dealer and related gaming worker operates table games. He/she stands or sits behind tables and operates games of chance by dispensing the appropriate number of cards or blocks to players, or operating other gambling equipment. He/she also distributes winnings or collects players' money or chips and may compare the house's hand against players' hands.

Example(s) of job classified under this code:

- Betting clerk
- Casino shuffler

Example(s) of job not classified under this code:

- Cage/Count supervisor, see 52301

MINOR GROUP 519 PERSONAL SERVICES WORKERS NOT ELSEWHERE CLASSIFIED

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5191 Astrologers, Fortune-Tellers and Related Workers
- 5193 Funeral Directors and Embalmers
- 5194 Pet Groomers, Animal Keepers and Trainers
- 5195 Driving Instructors
- 5199 Other Personal Services Workers Not Elsewhere Classified

Unit Group 5191 Astrologers, Fortune-Tellers and Related Workers

Astrologers, fortune-tellers and related workers recount past and predict future events in persons' lives by practising astrology, on the basis of characteristics of the clients' palms, samples of playing cards drawn or other techniques.

Tasks include:

- casting horoscopes of individuals at birth or later to recount past and forecast future events and conditions of their lives
- interpreting characteristics of clients' palms, samples of playing cards, position of tea leaves or coffee remnants in a cup, shapes and patterns of bones of dead animals etc.
- forecasting future events on the basis of these interpretations
- determining auspicious times for various human activities such as inaugurations, marriages, journeys and religious and other ceremonies
- giving warnings and advice on possible courses of action
- advising individuals on precautions to be taken to avoid evil influences

Occupation(s) in this Unit Group:

- 51910 Astrologer/Fortune-teller and related worker

Occupation 51910 Astrologer/Fortune-teller and related worker

Astrologer/Fortune-teller and related worker recounts past and predicts future events in persons' lives by practising astrology, on the basis of characteristics of the clients' palms, samples of playing cards drawn or other techniques. He/she presents analyses to clients together with interpretations about clients' temperament, predispositions related to their health, love and marriage issues, business and job opportunities and other personal aspects.

Unit Group 5193 Funeral Directors and Embalmers

Funeral directors and embalmers perform various tasks in the disposal of dead human bodies.

Tasks include:

- making arrangements for, and conducting, funerals, cremations and burials
- embalming human bodies to retard or arrest the process of decay
- conforming to health and sanitation and ensuring that legal requirements concerning embalming are met
- incising and closing incisions on various parts of the body and reshaping or reconstructing disfigured or maimed bodies when necessary
- dressing bodies and placing them in caskets
- conducting interviews to arrange for preparation of obituary notices, to assist with the selection of caskets or urns, and to determine the location and time of burials or cremations

Occupation(s) in this Unit Group:

- 51931 Funeral director
- 51932 Embalmer

Occupation 51931 Funeral director

Funeral director performs various tasks to arrange and direct an individual funeral services, such as coordinating transportation of the body to the mortuary, interviewing family or other authorised persons to arrange details, selecting pallbearers, aiding with the selection of officials for religious rites, and providing transportation for mourners.

Example(s) of job classified under this code:

- Columbaria operation staff
- Funeral attendant
- Hearse driver
- Undertaker

Example(s) of job not classified under this code:

- Embalmer, see 51932

Occupation 51932 Embalmer

Embalmer prepares the bodies of deceased persons for burials and cremations. He/she cleans and disinfects the bodies, uses makeup to create an impression of a more natural appearance

and hide any visible damage. He/she also liaises with funeral services directors to comply with the wishes of the deceased family members.

Example(s) of job classified under this code:

- Anatomical embalmer
- Assistant embalmer
- Mortician
- Mortician assistant

Example(s) of job not classified under this code:

- Funeral director, see 51931

Unit Group 5194 Pet Groomers, Animal Keepers and Trainers

Pet groomers, animal keepers and trainers feed, handle, train and groom animals and assist veterinarians, animal health technologists and technicians in veterinary facilities, animal shelters, breeding and boarding kennels, zoos, laboratories, retail pet shops, riding schools, dog training schools, pet grooming and similar establishments.

Tasks include:

- bathing and feeding animals
- leading or carrying animals to treatment room and holding them during treatment
- cleaning and sterilising veterinary surgical instruments
- labelling drugs, chemicals and other pharmaceutical preparations and replenishing stock
- sterilising bottles, beakers and other equipment
- cleaning, organising, and disinfecting animal quarters such as pens, stables, cages, and yards, and animal equipment such as saddles and bridles
- collecting and recording animal information such as weight, size, physical condition, treatments received, medications given and food intake
- training animals to develop and maintain desired animal behaviours for competition, entertainment, obedience, security, riding and other activities
- grooming animals by performing tasks such as washing, brushing, clipping, and trimming coats, cutting nails and cleaning ears

Occupation(s) in this Unit Group:

- 51941 Pet groomer
- 51942 Keeper/Trainer in zoological/bird/aquatic park
- 51943 Horse trainer

- 51944 Dog trainer
- 51949 Pet groomer/Animal keeper/trainer n.e.c.

Occupation 51941 Pet groomer

Pet groomer washes, dries, brushes, combs, cuts and styles pets' coats, clips their nails and cleans their ears using various equipment, materials and methods.

Example(s) of job classified under this code:

- Animal grooming service provider
- Cat groomer
- Dog grooming specialist

Occupation 51942 Keeper/Trainer in zoological/bird/aquatic park

Keeper/Trainer in zoological/bird/aquatic park feeds, waters, grooms, bathes, exercises, or otherwise provides care to promote and maintain the well-being of pets and other animals that are not raised for consumption, such as zoo animals, birds and ornamental fish. He/she trains animals to prescribed standards for riding, harness, security, performance, or obedience, or for assisting persons with disabilities. He/she also gives educational talks/tours to visitors.

Example(s) of job classified under this code:

- Bird trainer (bird park)
- Zoo keeper

Occupation 51943 Horse trainer

Horse trainer trains and prepares horses and horse riders for various purposes, including assistance, security, leisure, competition, transportation, obedience and routine handling, entertainment and education.

Example(s) of job classified under this code:

- Racehorse trainer

Occupation 51944 Dog trainer

Dog trainer trains and prepares dogs and dog handlers for various purposes, including assistance, security, leisure, competition, transportation, obedience and routine handling, entertainment and education. He/she teaches dogs to obey commands and undertake specific tasks.

Example(s) of job classified under this code:

- Greyhound trainer
- Trainer (obedience school)

Occupation 51949 Pet groomer/Animal keeper/trainer n.e.c.

This group covers pet groomer/animal keeper/trainer not elsewhere classified.

Example(s) of job classified under this code:

- Animal rescue operator
- Animal shelter assistant

Unit Group 5195 Driving Instructors

Driving instructors teach people how to drive motor vehicles.

Tasks include:

- instructing students under actual driving conditions, and explaining and demonstrating the operation of brakes, clutch, gear selection, automatic transmission, signals and lights
- teaching road traffic regulations
- teaching road craft and road safety
- advising students when they are ready to undergo driving examination
- advising on and teaching advanced driving techniques required for emergency situations
- illustrating and explaining the handling and mechanical operation of motor vehicles and driving techniques using blackboard diagrams and audio-visual aids

Occupation(s) in this Unit Group:

- 51950 Driving instructor/tester

Occupation 51950 Driving instructor/tester

Driving instructor/tester teaches people the theoretical and practical aspects on how to operate a vehicle safely and according to regulations. He/she prepares students for the driving theory and the driving examination. He/she may also supervise driving examinations.

Example(s) of job classified under this code:

- Driving tester
- Motorcycle riding instructor

Unit Group 5199 Other Personal Services Workers Not Elsewhere Classified

This unit group covers other personal services workers not elsewhere classified.

Tasks include:

- accompanying clients to restaurants and other outings
- acting as a dancing partner

Occupation(s) in this Unit Group:

- 51991 Social escort
- 51999 Other personal services worker n.e.c.

Occupation 51991 Social escort

Social escort serves as companion or friend to clients, usually at meals, dances and other social and recreational activities. He/she also entertains clients by making conversation on subjects of interest.

Example(s) of job classified under this code:

- Dance hostess

Example(s) of job not classified under this code:

- Nightclub hostess, see 51330

Occupation 51999 Other personal services worker n.e.c.

This group covers other personal services worker not elsewhere classified.

Example(s) of job classified under this code:

- Dating service consultant
- Matchmaker

SUB-MAJOR GROUP 52 SALES WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 521 STALL SALES WORKERS
- 522 SHOP SALESPERSONS
- 523 CASHIERS AND TICKET CLERKS
- 524 MODELS, SALES DEMONSTRATORS AND RELATED SALES WORKERS

MINOR GROUP 521 STALL SALES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5211 Hawkers and Stall Holders (Excluding Prepared Food and Drinks)
- 5212 Hawkers and Stall Holders (Prepared Food or Drinks)
- 5213 Newsvendors
- 5219 Stall Sales Workers Not Elsewhere Classified

Unit Group 5211 Hawkers and Stall Holders (Excluding Prepared Food and Drinks)

Hawkers and stall holders (excluding prepared food and drinks) sell various goods from stalls on open-air or covered markets or from stalls in streets or other open spaces.

Tasks include:

- obtaining permission to set up a stand at a particular place in streets, markets or other open spaces
- determining product mix, stock and price levels for goods to be sold
- buying or contracting a regular supply of goods to be sold from wholesale suppliers or directly from producers
- demonstrating and selling goods and accepting payment
- stacking and displaying goods for sale, and wrapping and packing goods sold
- keeping accounts and maintaining a record of stock levels

Notes:

Vendors from street and market stalls of fresh food products not intended for immediate consumption are classified in Unit Group 5211 'Hawkers and Stall Holders (Excluding Prepared Food and Drinks)'. Vendors in streets and public places that prepare food and beverages for immediate consumption are classified in Unit Group 5212 'Hawkers and Stall Holders (Prepared Food or Drinks)'. Workers who prepare simple food items for immediate consumption, such as hamburger cooks, but have limited direct contact with clients, are classified in Unit Group 9410 'Food Preparation and Kitchen Assistants'.

Occupation(s) in this Unit Group:

- 52110 Hawker/Stall holder (excluding prepared food and drinks)

Occupation 52110 Hawker/Stall holder (excluding prepared food and drinks)

Hawker/Stall holder (excluding prepared food and drinks) sells various goods from stalls on open-air or covered markets or from stalls in streets or other open spaces.

Example(s) of job classified under this code:

- Street vendor (excluding prepared food and drinks)

Example(s) of job not classified under this code:

- Hawker (prepared food/drinks), see 52120
- Newsvendor, see 52130
- Shop assistant, see 52202
- Sales demonstrator, see 52421

Unit Group 5212 Hawkers and Stall Holders (Prepared Food or Drinks)

Hawkers and Stall holders (prepared food or drinks) prepare and sell, or sell previously prepared, hot or cold food and beverages ready for immediate consumption in streets and public places such as hawker centres and markets.

Tasks include:

- obtaining permission or a licence, where required, to sell food and drinks on the street or in a public place
- obtaining food and drinks for sale
- preparing on the spot, food and drinks for sale
- displaying and selling food and drinks and accepting payment

Notes:

Vendors from street and market stalls of fresh food products not intended for immediate consumption are classified in Unit Group 5211 'Hawkers and Stall Holders (Excluding Prepared Food and Drinks)'. Vendors in streets and public places that prepare food and beverages for immediate consumption are classified in Unit Group 5212 'Hawkers and Stall Holders (Prepared Food or Drinks)'. Workers who prepare simple food items for immediate consumption, such as hamburger cooks, but have limited direct contact with clients, are classified in Unit Group 9410 'Food Preparation and Kitchen Assistants'.

Occupation(s) in this Unit Group:

- 52120 Hawker/Stall holder (prepared food/drinks)

Occupation 52120 Hawker/Stall holder (prepared food/drinks)

Hawker/Stall holder (prepared food/drinks) prepares and sells, or sells previously prepared, hot or cold food and beverages ready for immediate consumption in streets and public places such as hawker centres and markets.

Example(s) of job classified under this code:

- Street vendor (prepared food/drinks)

Example(s) of job not classified under this code:

- Stall holder (excluding prepared food and drinks), see 52110
- Stall sales worker, see 52190
- Cafeteria counter attendant, see 52492
- Hawker stall assistant (prepared food/drinks), see 94102

Unit Group 5213 Newsvendors

Newsvendors sell newspapers and magazines in streets and public places such as stations, shopping centres or theatres.

Tasks include:

- displaying newspapers, magazines and related items for sale
- receiving payment for sold newspapers, magazines and related items

Occupation(s) in this Unit Group:

- 52130 Newsvendor

Occupation 52130 Newsvendor

Newsvendor sells newspapers and magazines in streets and public places such as stations, shopping centres or theatres.

Example(s) of job classified under this code:

- Newsagent
- Newsdealer
- Newsstand operator

Example(s) of job not classified under this code:

- Stall holder (excluding prepared food and drinks), see 52110
- Stall holder (prepared food/drinks), see 52120
- Stall sales worker, see 52190

Unit Group 5219 Stall Sales Workers Not Elsewhere Classified

This unit group covers stall sales workers not elsewhere classified.

Tasks include:

- setting up a stall at a particular place in streets, markets or other open spaces with permission granted by authorities

- demonstrating and selling goods and accepting payment
- stacking and displaying goods for sale, and wrapping and packing goods sold
- keeping accounts and maintaining a record of stock levels

Occupation(s) in this Unit Group:

- 52190 Stall sales worker n.e.c.

Occupation 52190 Stall sales worker n.e.c.

This group covers stall sales worker not elsewhere classified.

Example(s) of job classified under this code:

- Stall sales worker

Example(s) of job not classified under this code:

- Stall holder (prepared food/drinks), see 52120
- Newsvendor, see 52130
- Shop assistant, see 52202

MINOR GROUP 522 SHOP SALESPERSONS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5220 Shop and Store Salespersons

Unit Group 5220 Shop and Store Salespersons

Shop and store salespersons sell a range of goods and services directly to the public or on behalf of retail and wholesale establishments. They explain functions and qualities of these goods and services. Shop supervisors also supervise the activities of shop sales assistants and cashiers.

Tasks include:

- ensuring that safety procedures are enforced
- determining customers' requirements and advising on product range, price, delivery, warranties and product use and care
- demonstrating and explaining to customers the establishment's goods and services
- selling goods and services, accepting payment by a variety of payment methods, preparing sales invoices and recording sales using cash registers
- assisting with the ongoing management of stock such as product inventories and participating in stock takes

- stacking and displaying goods for sale, and wrapping and packing goods sold

Occupation(s) in this Unit Group:

- 52201 Sales supervisor
- 52202 Shop sales assistant

Occupation 52201 Sales supervisor

Sales supervisor supervises and coordinates the activities of shop sales assistants, checkout operators and other workers in retail and wholesale shops such as supermarkets and department stores. He/she oversees daily store operations and manages merchandising activities to optimise sales performance. He/she estimates needs of business and authorises the purchase of goods of the types, qualities and quantities required.

Example(s) of job classified under this code:

- Showroom supervisor (retail trade)
- Showroom supervisor (wholesale trade)

Example(s) of job not classified under this code:

- Retail manager, see 14201
- Street vendor (prepared food/drinks), see 52120
- Stall sales worker, see 52190

Notes:

Staff who control and direct the activities of shop sales assistants, checkout operators and other workers, but who do not take responsibility for determining product mix, overall setting of prices, budgets and staffing levels, selection and recruitment, are classified in this Unit Group 5220 'Shop and Store Salespersons'.

Shop managers who, in addition to supervision of staff, perform management tasks such as determining product mix, overall setting of prices, budgeting and making decisions on staff levels, selection and recruitment are classified in Unit Group 1420 'Retail and Wholesale Trade Managers'.

Occupation 52202 Shop sales assistant

Shop sales assistant sells a range of goods and services directly to the public or on behalf of retail and wholesale establishments, and explains the functions and qualities of these goods and services. He/she assists customers by pointing out features and merits of an article or by demonstrating them, and quotes prices, credit terms and quantity discounts. He/she may handle order fulfilment processes for online orders and collection in-store.

Example(s) of job classified under this code:

- Retail trade salesman
- Shop assistant
- Wholesale trade salesman

Example(s) of job not classified under this code:

- Retail manager, see 14201
- Street vendor (prepared food/drinks), see 52120
- Stall holder (excluding prepared food and drinks), see 52110
- Stall sales worker, see 52190
- Booking office cashier, see 52302

MINOR GROUP 523 CASHIERS AND TICKET CLERKS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5230 Cashiers and Ticket Clerks

Unit Group 5230 Cashiers and Ticket Clerks

Cashiers and ticket clerks operate cash registers, optical price scanners, computers or other equipment to record and accept payment for the purchase of goods, services and admissions in settings such as stores, restaurants and ticket offices.

Tasks include:

- receiving and verifying payment by cash, cheque, credit card or automatic debit in stores, ticket offices or similar establishments
- giving change and issuing receipts
- issuing tickets for attendance at sporting and cultural events
- counting and recording money received or paid out and balancing against cash register sales records
- receiving incoming cash, checking it against sales slips and other documents, and preparing it for deposit at banks
- operating the cash register to calculate the total to be paid to or from clients
- scanning, weighing and recording prices of goods
- wrapping and placing merchandise in bags

Occupation(s) in this Unit Group:

- 52301 Cage/Count supervisor

- 52302 Cashier (general)
- 52303 Office cashier
- 52309 Cashier/Ticket clerk n.e.c.

Occupation 52301 Cage/Count supervisor

Cage/Count supervisor oversees and manages the casino cage personnel in the exchanging of coins, tokens and chips for patrons' money. He/she issues payoffs and obtains the customer's signature on receipt while operating a booth in the slot machine area.

Example(s) of job classified under this code:

- Cage supervisor
- Count supervisor

Example(s) of job not classified under this code:

- Accounts section supervisor, see 40000
- Cage secretary, see 41109
- Casino shift manager, see 51701
- Betting clerk, see 51702

Occupation 52302 Cashier (general)

Cashier (general) receives cash and gives change in retail stores, theatres or other establishments in payment for goods or services. He/she checks the amount due, collects money, gives change and issues receipts or tickets as required.

Example(s) of job classified under this code:

- Booking office cashier
- Box-office cashier
- Restaurant cashier
- Store cashier

Example(s) of job not classified under this code:

- Bank cashier, see 42111
- Toll collector, see 42149
- Ticketing officer (travel agency), see 42210
- Shop assistant, see 52202

Occupation 52303 Office cashier

Office cashier takes charge of cash and keeps records of cash transactions incident to the conduct of a business, usually in an office. He/she receives incoming cash, checks it against sales slips or cash receipts, makes change and cashes cheques.

Example(s) of job classified under this code:

- Cash accounting clerk
- Casino cashier

Occupation 52309 Cashier/Ticket clerk n.e.c.

This group covers cashier/ticket clerk not elsewhere classified.

Example(s) of job classified under this code:

- Car park cashier

MINOR GROUP 524 MODELS, SALES DEMONSTRATORS AND RELATED SALES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5241 Fashion and Related Models
- 5242 Sales Demonstrators and Door-to-Door Salespersons
- 5244 Contact Centre Salespersons
- 5249 Sales Workers Not Elsewhere Classified

Unit Group 5241 Fashion and Related Models

Fashion and related models wear and display clothing and accessories and pose for photographs, film and video, advertising, still photography or for artistic creation.

Tasks include:

- dressing in sample apparel of new or current styles or of type wanted by customer
- walking, turning and posing to demonstrate style and characteristics of garments, fashion accessories and other merchandises to best advantage
- posing as subject for sculpture, painting and other types of visual art
- posing for still photography for magazines and other advertising media
- posing for television, video and cinema commercials and other productions

Occupation(s) in this Unit Group:

- 52410 Fashion and related model

Occupation 52410 Fashion and related model

Fashion and related model wears and displays clothing and accessories and poses for photographs, film and video, advertising, still photography or for artistic creation to promote products. He/she strikes the right pose in front of a camera and ensures his/her appearance is in order.

Example(s) of job classified under this code:

- Advertising model
- Artist's model
- Mannequin
- Model (clothing display)

Unit Group 5242 Sales Demonstrators and Door-to-Door Salespersons

Sales demonstrators and door-to-door salespersons sell goods and services and solicit business for an establishment by approaching or visiting potential customers, either in commercial premises and exhibitions or by going from door to door. They also demonstrate goods at commercial premises, exhibitions and private homes.

Tasks include:

- setting up displays and demonstrating articles for sale to inform customers about their characteristics and mode of use, as well as to stimulate buying interest
- answering questions and offering advice on the use of goods
- selling goods or directing customers to sales staff
- taking orders and making arrangements for payment, delivery and collection of goods
- offering sample goods and distributing catalogues and advertising material
- giving details of various goods or services and of terms of sale by visiting clients and potential clients door to door
- preparing invoices and sales contracts and accepting payment
- compiling lists of prospective clients and calling on them to obtain new businesses
- travelling between sales areas and clients and transporting samples or goods for sale

Occupation(s) in this Unit Group:

- 52421 Sales demonstrator
- 52422 Salesperson (door-to-door)

Occupation 52421 Sales demonstrator

Sales demonstrator gives demonstrations of articles for sale at commercial premises, exhibitions and private homes. He/she explains the merits of an article and shows how it works, attempting to stimulate buying interest.

Example(s) of job classified under this code:

- Promotion salesperson
- Sales merchandiser
- Sales promoter

Example(s) of job not classified under this code:

- Street vendor (excluding prepared food and drinks), see 52110

Occupation 52422 Salesperson (door-to-door)

Salesperson (door-to-door) describes, demonstrates and sells goods and services and solicits business for establishments by approaching or visiting potential customers, usually residents in private homes, by going from door to door. He/she gives details of what establishment can supply and quotes prices and terms.

Example(s) of job classified under this code:

- Outdoor salesman
- Sales canvasser

Unit Group 5244 Contact Centre Salespersons

Contact centre salespersons contact existing and prospective customers, using the telephone or other electronic communications media to promote goods and services, obtain sales and arrange sales visits. They may work from a customer contact centre or from non-centralised premises.

Tasks include:

- promoting goods and services by telephone or electronic mail, following scripts and working from lists of contacts
- creating interest in goods and services, and seeking a sale or agreement to see sales representatives
- arranging processing and despatch of goods and services, information kits and brochures to customers
- arranging appointments for sales representatives
- recording notes for follow-up action and updating marketing databases to reflect changes to the status of each customer

- reporting issues raised by contacts for attention by managers
- maintaining statistics of calls made and successes achieved
- submitting periodic reports on telemarketing activities and results

Occupation(s) in this Unit Group:

- 52440 Telemarketer

Occupation 52440 Telemarketer

Telemarketer contacts existing and prospective customers, using the telephone or other electronic communications media to promote goods and services, obtain sales and arrange sales visits.

Example(s) of job classified under this code:

- Telephone sales agent
- Telesales marketer

Example(s) of job not classified under this code:

- Contact centre information clerk, see 42246

Unit Group 5249 Sales Workers Not Elsewhere Classified

This unit group covers sales workers not elsewhere classified.

Tasks include:

- filling fuel tanks and containers to level specified by customer
- checking and replenishing air pressure in vehicle tyres and oil and other vehicle fluid levels
- washing vehicle windscreens and windows
- performing minor repair work to vehicles such as replacing tyres, light bulbs and windscreen wiper blades
- maintaining and operating automatic car wash facilities
- cleaning petrol pumps and surrounding driveway, shop and facilities
- serving food to customers at counters
- ascertaining the products desired by the customer, assisting customers in making a choice, taking orders and communicating orders to kitchen manually or through Point of Sale (POS) systems and/or other software
- responding to customer enquiries and providing information on food/drinks (e.g. ingredients, dietary allergens)

- cleaning, peeling, slicing and trimming foodstuffs using manual and electric appliances
- preparing simple food items and re-heating prepared meals
- portioning and wrapping food or placing it directly on plates for service to patrons
- packaging take-away food
- collecting payments from customers for purchases and performing other cashiering duties (e.g. issuing refunds)
- managing online orders made via digital platforms
- undertaking stock control and preparing records on items sold or used

Occupation(s) in this Unit Group:

- 52491 Petrol station attendant
- 52492 Food service counter attendant
- 52499 Other sales worker n.e.c.

Occupation 52491 Petrol station attendant

Petrol station attendant sells fuel, lubricants and other automotive products and provides services such as fuelling, cleaning and lubricating. He/she ascertains the customer's requirements and supplies petrol, oil, air or water.

Example(s) of job classified under this code:

- Petrol pump attendant
- Service station attendant (automobiles)

Occupation 52492 Food service counter attendant

Food service counter attendant serves customers at food counters and finishes preparation of simple food/drinks items in restaurants, cafes, hotels, fast food outlets, cafeterias, hospitals and other settings. He/she performs duties such as taking orders, communicating orders to kitchen, responding to customer enquiries, collecting payments and serving food and beverages. He/she may also be involved in stocktaking and raising inventory orders when needed.

Example(s) of job classified under this code:

- Bubble tea service crew
- Cafeteria counter attendant
- Fast food counter attendant
- Refreshments salesman (cinema/theatre)

- Salad bar counter attendant

Example(s) of job not classified under this code:

- Stall holder (prepared food/drinks), see 52120
- Fast food preparer, see 94103

Occupation 52499 Other sales worker n.e.c.

This group covers other sales worker not elsewhere classified.

Example(s) of job classified under this code:

- Programme salesman (theatre)
- Ship chandler

SUB-MAJOR GROUP 53 PERSONAL CARE WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 531 CHILD CARE WORKERS AND TEACHER AIDES
- 532 HEALTHCARE ASSISTANTS AND RELATED PERSONAL CARE WORKERS

MINOR GROUP 531 CHILD CARE WORKERS AND TEACHER AIDES

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5311 Child Care and Related Workers
- 5312 Teacher Aides

Unit Group 5311 Child Care and Related Workers

Child care and related workers provide care and supervision for children and youths in residential homes and in before school, after school, vacation and day care centres.

Tasks include:

- assisting children to wash, dress and feed themselves
- taking children to and from school or outdoors for recreation
- playing games with children, or entertaining them by reading or storytelling
- assisting in the preparation of materials and equipment for children's education and recreational activities
- managing children's and youth's behaviours and guiding their social development

- disciplining children and recommending or initiating other measures to control behaviour, such as caring for their own clothing and picking up toys and books
- observing and monitoring children's play activities
- keeping records on individual children or youth, including daily observations and information about activities, meals served, and medications administered

Occupation(s) in this Unit Group:

- 53111 Babysitter/Infant care-giver
- 53112 Confinement nanny
- 53113 Child/After school care centre worker
- 53114 Child/Youth residential care assistant

Occupation 53111 Babysitter/Infant care-giver

Babysitter/Infant care-giver provides short-term care services to children on the premises of the employer, or other locations depending on the employer's needs. He/she organises play activities and entertains children with games and other cultural and educative activities according to their respective age.

Example(s) of job classified under this code:

- Infant care assistant
- Nanny

Occupation 53112 Confinement nanny

Confinement nanny performs neonatal care such as feeding, nursing, and changing diapers, clothes, and bedding. He/she provides advice on postpartum contractions, lochia observation and ensures a healthy environment for both mother and baby by preparing nutritious meals, practicing maternal healthcare, and performing basic domestic services such as sweeping and mopping. He/she may monitor the baby's development such as by regular measurement of the baby's body temperature, height and weight.

Occupation 53113 Child/After school care centre worker

Child/After school care centre worker provides care for children when the parents or family members are unavailable. He/she looks after the children's basic needs and helps or supervises them during play and study.

Example(s) of job classified under this code:

- Child care assistant
- Child care provider

Example(s) of job not classified under this code:

- Child care services manager, see 13410

Occupation 53114 Child/Youth residential care assistant

Child/Youth residential care assistant cares for children in private households and provides support and expertise to parents in satisfying children's physical, emotional, intellectual, and social needs. He/she is also involved in meal planning and preparation, laundry and clothing care, organisation of play activities and outings, discipline, intellectual stimulation, language activities, and transportation.

Example(s) of job classified under this code:

- Home parent
- Youth residential care assistant

Unit Group 5312 Teacher Aides

Teacher aides perform non-teaching duties to assist teaching staff, and provide care and supervision for children in schools and preschools.

Tasks include:

- demonstrating, supervising and participating in activities that enhance the physical, social, emotional and intellectual development of children in schools and preschools
- preparing indoor and outdoor areas for learning and recreational activities
- assisting children with intellectual, physical, behavioural and other learning difficulties with their studies
- assisting children individually to learn social skills
- assisting with preparing teaching materials, and copying and collating written and printed material
- operating audio-visual equipment, computers and other teaching aides
- distributing and collecting lesson material
- collaborating with external partners to support activities related to students' learning

Occupation(s) in this Unit Group:

- 53120 Teacher aide

Occupation 53120 Teacher aide

Teacher aide performs non-teaching duties to assist teaching staff, and provides care and supervision for children in schools and preschools. He/she performs duties that are instructional in nature, works closely with teachers to support the teaching and learning of

preschool children, primary and secondary school students in both academic and non-academic areas.

Example(s) of job classified under this code:

- Allied educator
- Assistant early years educator
- Assistant infant educator
- Assistant preschool educator
- Classroom support teacher

MINOR GROUP 532 HEALTHCARE ASSISTANTS AND RELATED PERSONAL CARE WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5320 Healthcare Assistants and Related Personal Care Workers

Unit Group 5320 Healthcare Assistants and Related Personal Care Workers

Healthcare assistants and related personal care workers provide direct personal care and assistance with activities of daily living to patients and elderly, convalescent and disabled people in healthcare and residential settings such as hospitals, clinics, residential nursing care facilities, private homes and old folks homes.

Tasks include:

- providing care, support and treatment to patients and residents of medical, rehabilitative and residential care facilities as per treatment plans established by medical, nursing and other health professionals
- assisting patients with personal and therapeutic care needs such as personal hygiene, feeding, dressing, physical mobility and exercise, communication, taking oral medications and changing dressings
- positioning, lifting and turning patients and transporting them in wheelchairs or on movable beds
- maintaining patients' environmental hygiene standards, such as cleaning patient rooms and changing bed-linen
- providing massage and other non-pharmacological pain relief measures, such as during pregnancy and labour
- observing patients' condition, responses and behaviour and reporting changes to a health professional
- providing clients and families with emotional support and information and advice on topics such as nutrition, hygiene, exercise, caring for infants, or adapting to disability or illness
- providing psychological support to clients such as through conversation or reading aloud

- planning, purchasing, preparing or serving meals to meet nutritional requirements and prescribed diets
- providing support to parents and care for newborns during the postpartum period
- scheduling and accompanying clients for appointments with medical doctors and other health professionals or performing other errands
- assisting therapists by guiding patients through their exercises during the rehabilitation sessions, and holding individual or group therapy sessions with the patients after receiving the treatment plan from the therapists

Notes:

This unit group covers workers who provide personal care to residents of institutions and facilities that have permanent medical or nursing supervision (such as hospitals, rehabilitation centres, residential nursing care facilities and nursing homes) as well as those who provide personal care to residents of independent living units, generally without permanent medical or nursing supervision.

Occupation(s) in this Unit Group:

- 53201 Healthcare assistant
- 53202 Nursing aide/assistant
- 53203 Dental aide/assistant
- 53209 Healthcare assistant and related personal care worker n.e.c.

Occupation 53201 Healthcare assistant

Healthcare assistant works together in a team with registered nurses and/or therapists within the occupational fields of nursing, care and maintenance of people of all age groups in all diverse acute care settings as well as in primary care environments. He/she sets up, prepares, checks, and cleans materials, tools, treatment areas and equipment for care and therapy of patients. He/she may transfer patients to and from treatment areas, or perform other tasks, under the instructions or care plans of a nurse and/or therapist. He/she can be employed in both healthcare and social service settings.

Example(s) of job classified under this code:

- Medical equipment preparer
- Patient care assistant
- Therapy aide
- Therapy assistant

Example(s) of job not classified under this code:

- Registered nurse, see 22200
- Assistant nurse, see 32200

Occupation 53202 Nursing aide/assistant

Nursing aide/assistant provides or assists with basic care and support under the direction of licensed nursing staff. He/she performs duties such as monitoring of health status, feeding, bathing, dressing, grooming, toileting, or ambulation of patients in a health, nursing or community care facility, medication administration and other health-related tasks.

Example(s) of job classified under this code:

- Home care aide
- Home health aide
- Nursing care attendant
- Nursing helper
- Community care associate

Example(s) of job not classified under this code:

- Nurse midwife, see 22200
- Assistant nurse, see 32200
- Community health worker, see 32530

Occupation 53203 Dental aide/assistant

Dental aide/assistant performs limited clinical duties under the direction of a dentist, including equipment preparation and sterilisation, preparing patients for treatment, assisting the dentist during treatment, and providing patients with instructions for oral healthcare procedures. He/she may perform administrative duties such as scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes.

Example(s) of job classified under this code:

- Dental aide
- Dental attendant
- Dental surgery assistant

Example(s) of job not classified under this code:

- Oral health therapist, see 32510
- Dental technician, see 32143

Occupation 53209 Healthcare assistant and related personal care worker n.e.c.

This group covers healthcare assistant and related personal care worker not elsewhere classified.

Example(s) of job classified under this code:

- Personal care worker (home care)
- Personal care worker (nursing home)
- Personal care worker (old folks home)

SUB-MAJOR GROUP 54 PROTECTIVE SERVICES WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 541 PROTECTIVE SERVICES WORKERS

MINOR GROUP 541 PROTECTIVE SERVICES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5411 Fire-Fighting and Rescue Officers
- 5412 Police Officers
- 5413 Prison Officers
- 5414 Security Guards
- 5415 Lifeguards
- 5419 Protective Services and Related Workers Not Elsewhere Classified

Unit Group 5411 Fire-Fighting and Rescue Officers

Fire-fighting and rescue officers prevent, fight and extinguish fires and assist in other emergencies, protect life and property and conduct rescue efforts.

Tasks include:

- responding to fire alarms and other calls for assistance, such as automobile and industrial accidents, bomb threats and other emergencies
- controlling and extinguishing fires using manual and power equipment and fire-fighting chemicals
- fighting special types of fires and using special equipment in industrial establishments
- rescuing people from burning buildings and accident sites and those trapped in dangerous situations
- preventing or limiting the spread of dangerous substances in case of fires or accidents
- informing the public about fire prevention

Occupation(s) in this Unit Group:

- 54110 Fire-fighting/Rescue officer

Occupation 54110 Fire-fighting/Rescue officer

Fire-fighting/Rescue officer prevents, fights and extinguishes fires and assists in other emergencies, protects life and property and conducts rescue efforts.

Example(s) of job classified under this code:

- Aircraft accident fire-fighter
- Airport emergency officer
- Fire brigade officer
- Fire investigator
- Fire prevention officer

Example(s) of job not classified under this code:

- Fire and safety inspector, see 31711

Unit Group 5412 Police Officers

Police officers maintain law and order, patrol public areas, enforce laws and regulations and arrest suspected offenders.

Tasks include:

- patrolling a specific area to maintain public order, respond to emergencies, protect people and property and enforce laws and regulations
- identifying, pursuing and arresting suspects and perpetrators of criminal acts
- directing traffic and assuming authority in the event of accidents
- providing emergency assistance to victims of accidents, crimes and natural disasters

Occupation(s) in this Unit Group:

- 54121 Police officer
- 54122 Narcotics officer
- 54123 Auxiliary police officer

Occupation 54121 Police officer

Police officer performs surveillance and patrol activities to prevent crimes. He/she uses investigation methods to pursue and apprehend criminals while protecting the public from violent and criminal activities.

Example(s) of job classified under this code:

- Air marshall

- Police constable
- Traffic policeman

Example(s) of job not classified under this code:

- Police inspector, see 33551
- Prison warden, see 54130

Occupation 54122 Narcotics officer

Narcotics officer investigates and conducts undercover operations to gather evidence and arrest drug offenders during field operations.

Example(s) of job classified under this code:

- Narcotics investigator

Occupation 54123 Auxiliary police officer

Auxiliary police officer protects assigned premises, assets and personnel. He/she maintains law and order, and safeguards premises from potential security threats. He/she also performs access control, security screening, regulating traffic duties, patrolling and guarding services, and manages incidents and emergencies.

Example(s) of job not classified under this code:

- Auxiliary police officer supervisor, see 33552
- Prison warden, see 54130
- Private security officer, see 54144

Unit Group 5413 Prison Officers

Prison officers watch over and maintain order among inmates of prisons, reformatories or penitentiaries.

Tasks include:

- searching arriving prisoners, putting their valuables in safekeeping, escorting prisoners to cells and locking them in
- making periodic inspection tours of cells and inspecting and maintaining the security of locks, windows, doors and gates
- supervising prisoners at work, meals or during recreation periods
- observing the conduct and behaviour of prisoners to prevent disturbances and escapes
- patrolling prison areas to prevent escape

- assisting with the implementation of rehabilitation programmes
- escorting prisoners in transit and during temporary leaves

Occupation(s) in this Unit Group:

- 54130 Prison officer

Occupation 54130 Prison officer

Prison officer watches over and maintains order among inmates of prisons, reformatories or penitentiaries. He/she supervises inmates in a correctional facility and ensures the security and peace-keeping in the facility. He/she performs checks and searches to ensure compliance to regulations in addition to monitoring visitations and the activities of inmates.

Example(s) of job classified under this code:

- Correction facility guard
- Correction officer
- Gaoler
- Prison warden

Example(s) of job not classified under this code:

- Police officer, see 54121
- Auxiliary police officer, see 54123

Unit Group 5414 Security Guards

Security guards patrol or monitor premises to guard property against theft and vandalism. They control access to establishments and maintain order and enforce regulations at public events and within establishments.

Tasks include:

- patrolling premises and checking doors, windows and gates to prevent and detect signs of unauthorised entry
- controlling access to establishments, monitoring and authorising the entrance or departure of employees and visitors, checking identification and issuing security passes
- circulating among visitors, patrons or employees to preserve order, protect property from theft or vandalism and enforce the regulations of the establishment
- responding to alarms, investigating disturbances and contacting superiors, police or fire-fighters as appropriate
- performing security checks of passengers and luggage at airports

- picking up and ensuring the safe delivery of cash and valuables to banks, automated teller machines and retail establishments
- coaching and leading a team of security guards, reviewing and updating security operating procedures, etc.

Occupation(s) in this Unit Group:

- 54141 Senior security supervisor
- 54142 Security supervisor
- 54143 Senior private security officer
- 54144 Private security officer

Occupation 54141 Senior security supervisor

Senior security supervisor leads his/her security team in providing protection to assigned premises, assets and personnel. He/she plans, deploys and conducts security operation audits, as well as assesses security risks and their mitigation. He/she conducts after action reviews, assesses performance of security personnel and develops training plans.

Example(s) of job classified under this code:

- Head of security officers

Example(s) of job not classified under this code:

- Safety/Security consultant, see 33394

Notes:

Senior security supervisor is in charge of the Security Command Centre/CCTV Centre/Central Alarm Monitoring Centre/Fire Command Centre with more than 3 personnel (including the security supervisor) and responsible for conducting security audits and risk assessment, higher supervision. By regulations, security supervisor cannot perform the above and is site-in-charge for Security Command Centres with 3 or fewer personnel.

Occupation 54142 Security supervisor

Security supervisor assists the senior security supervisor in leading the security team which protects assigned premises, assets and personnel. He/she assigns areas to be patrolled by guards on a regular basis and transfers the individual caught trespassing to police custody. He/she also handles medical incidents, compiles incident reports, liaises with and provides relevant information requested by other departments.

Example(s) of job not classified under this code:

- Safety/Security consultant, see 33394
- Senior security supervisor, see 54141

Notes:

Senior security supervisor is in charge of the Security Command Centre/CCTV Centre/Central Alarm Monitoring Centre/Fire Command Centre with more than 3 personnel (including the security supervisor) and responsible for conducting security audits and risk assessment, higher supervision. By regulations, security supervisor cannot perform the above and is site-in-charge for Security Command Centres with 3 or fewer personnel.

Occupation 54143 Senior private security officer

Senior private security officer protects assigned premises, assets and personnel. He/she manages key press, regulates traffic, attends to enquiries from stakeholders, performs surveillance at the command centre, operates security systems, provides assistance to law enforcement and manages incidents and emergencies.

Example(s) of job classified under this code:

- Senior aviation security officer

Notes:

Senior private security officer is responsible for management of security and safety systems, regulating traffic, CCTV/Central Alarm Monitoring/Fire Command Centre Monitoring, assisting of state/auxiliary police in law enforcement, and key press management. By regulations, private security officer cannot perform these.

Occupation 54144 Private security officer

Private security officer protects assigned premises, assets and personnel. He/she performs access control, conducts security screening, attends to enquiries from stakeholders, patrols and guards premises, as well as manages incidents and emergencies.

Example(s) of job classified under this code:

- Aviation security officer
- Bodyguard
- Patrolman (private establishment)

Example(s) of job not classified under this code:

- Auxiliary police officer, see 54123
- Building caretaker, see 96261

Notes:

Senior private security officer is responsible for management of security and safety systems, regulating traffic, CCTV/Central Alarm Monitoring/Fire Command Centre Monitoring, assisting of state/auxiliary police in law enforcement, and key press management. By regulations, private security officer cannot perform these.

Unit Group 5415 Lifeguards

Lifeguards look after the safety of people at beaches or swimming pools through accident prevention and rescue and educate the public on water safety. They require high levels of physical fitness, sporting ability and personal commitment as well as, or in place of, formal qualifications or experience.

Tasks include:

- patrolling beaches and swimming pools to prevent accidents and to rescue bathers from drowning

Occupation(s) in this Unit Group:

- 54150 Lifeguard

Occupation 54150 Lifeguard

Lifeguard looks after the safety of people at beaches or swimming pools through accident prevention and rescue and educates the public on water safety. He/she monitors and ensures safety in the aquatic facility by preventing and responding to any emergencies. He/she identifies potential risks, advises individuals on proper behaviour and dangerous zones, and conducts life-saving techniques such as first aid.

Example(s) of job classified under this code:

- Beach guard
- Pool lifeguard

Unit Group 5419 Protective Services and Related Workers Not Elsewhere Classified

This unit group covers protective services and related workers not elsewhere classified.

Tasks include:

- conducting private investigations for commercial or other establishments and individuals
- controlling access to discotheques and related recreational establishments
- maintaining order at venues where there are such gatherings of people
- responding to citizen complaints concerning stray domestic animals, livestock and wildlife, issuing warnings and citations to owners and impounding lost, homeless and dangerous animals
- patrolling natural reserves and parks to prevent theft, vandalism and fires

Occupation(s) in this Unit Group:

- 54191 Private investigator
- 54192 Industrial investigator
- 54193 Insurance investigator
- 54194 Park ranger

- 54199 Other protective services and related worker n.e.c.

Occupation 54191 Private investigator

Private investigator conducts private investigations for commercial, other establishments or individuals. He/she investigates shoplifting, theft, dishonesty or other undesirable conduct among employees or customers of a business establishment or other private organisations.

Example(s) of job classified under this code:

- House detective
- Private inquiry agent
- Private detective

Example(s) of job not classified under this code:

- Industrial investigator, see 54192

Occupation 54192 Industrial investigator

Industrial investigator investigates and determines facts in connection with spurious goods at the request of manufacturing companies or establishments. He/she investigates source of goods known to be imitations and makes detailed reports to his/her employers.

Example(s) of job not classified under this code:

- Private investigator, see 54191
- Insurance investigator, see 54193

Occupation 54193 Insurance investigator

Insurance investigator investigates, analyses, and determines the facts in connection with spurious claims at the request of insurance companies. He/she corresponds with or interviews medical specialists, agents, witnesses, or claimants to compile information.

Example(s) of job classified under this code:

- Insurance fraud specialist

Example(s) of job not classified under this code:

- Industrial investigator, see 54192

Occupation 54194 Park ranger

Park ranger supervises and coordinates activities of workers engaged in silvi-cultural work in park ranges. He/she supervises the silvi-cultural work such as poison-girdling, planting thinning and enumeration of trees in a specific park range.

Example(s) of job classified under this code:

- Park warden

Occupation 54199 Other protective services and related worker n.e.c.

This group covers other protective services and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Bailiff
- Forest ranger

SUB-MAJOR GROUP 59 SERVICES WORKERS NOT ELSEWHERE CLASSIFIED

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 590 SERVICES WORKERS NOT ELSEWHERE CLASSIFIED

MINOR GROUP 590 SERVICES WORKERS NOT ELSEWHERE CLASSIFIED

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 5900 Services Workers Not Elsewhere Classified

Unit Group 5900 Services Workers Not Elsewhere Classified

This unit group covers services workers not elsewhere classified.

Occupation(s) in this Unit Group:

- 59000 Services worker n.e.c.

Occupation 59000 Services worker n.e.c.

This group covers services worker not elsewhere classified.

MAJOR GROUP 6 AGRICULTURAL AND FISHERY WORKERS

Occupation(s) in this Major Group are classified into the following Sub-major Group(s):

- 61 AGRICULTURAL WORKERS
- 62 FISHERY WORKERS

SUB-MAJOR GROUP 61 AGRICULTURAL WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 611 MARKET GARDENERS AND CROP GROWERS
- 612 ANIMAL PRODUCERS
- 619 AGRICULTURAL WORKERS NOT ELSEWHERE CLASSIFIED

MINOR GROUP 611 MARKET GARDENERS AND CROP GROWERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 6111 Vegetable Farm Workers
- 6113 Gardeners, Horticultural and Nursery Growers

Unit Group 6111 Vegetable Farm Workers

Vegetable farm workers perform farming operations to grow and harvest various types of field crops such as rice and other cereals, beetroot, sugarcane, groundnuts, tobacco, reed or other field crops and potatoes, cabbages or other field vegetables, for sale or delivery on a regular basis to wholesale buyers, marketing organisations or at markets.

Tasks include:

- preparing soil by hand or machine, and spreading fertilisers and manure
- selecting and sowing seeds and planting seedlings
- maintaining crops by cultivating soil, by transplanting, pruning or thinning plants and by setting up and operating irrigation equipment
- controlling weeds, pests and diseases by applying herbicides and pesticides
- harvesting crops and destroying diseased or superfluous crops
- inspecting, cleaning, grading, packaging, storing and loading crops for sale or delivery to market
- maintaining farm buildings, structures, equipment and water supply systems
- storing and carrying out some processing of produce

- promoting and marketing products, arranging the sale, purchase and transportation of produce and supplies and maintaining and evaluating records of farm activities and transactions

Occupation(s) in this Unit Group:

- 61110 Vegetable farm worker

Occupation 61110 Vegetable farm worker

Vegetable farm worker performs farming operations to grow and harvest various types of field crops such as rice and other cereals, beetroot, sugarcane, groundnuts, tobacco, reed or other field crops and potatoes, cabbages or other field vegetables, for sale or delivery on a regular basis to wholesale buyers, marketing organisations or at markets.

Example(s) of job classified under this code:

- Farm supervisor (mushrooms)
- Hydroponic farm worker

Example(s) of job not classified under this code:

- Agriculture production manager, see 13100

Unit Group 6113 Gardeners, Horticultural and Nursery Growers

Gardeners, horticultural and nursery growers perform operations to cultivate and maintain trees, shrubs, flowers and other plants in parks and private gardens, and to produce saplings, bulbs and seeds, or grow vegetables and flowers by intensive cultivation techniques, for sale or delivery on a regular basis to wholesale buyers, marketing organisations or at markets.

Tasks include:

- preparing land by conditioning soil, levelling ground and installing and operating irrigation and drainage systems
- planting trees, hedges, garden plants and grass
- pruning and trimming trees, shrubs and hedges, installing plant supports and protection, and rolling, mowing, aerating and edging lawns
- constructing features and facilities within gardens, such as paths or paved areas, walls, rockeries, garden beds, ponds and water features, sheds and fences
- checking the health of plants and trees, identifying and treating weeds, pests and diseases, and applying mulch and fertilisers
- producing saplings, bulbs and seeds and raising plants from seeds or cuttings
- harvesting crops, inspecting, cleaning, grading, packaging, storing and loading products for sale or delivery to market
- maintaining buildings, greenhouses and other structures, equipment and water supply systems

- storing and carrying out some processing of produce
- promoting and marketing products, arranging the sale, purchase and transportation of produce and supplies and maintaining and evaluating records of activities and transactions

Occupation(s) in this Unit Group:

- 61131 Landscape/Plant nursery supervisor
- 61132 Plant nursery worker
- 61133 Gardener/Horticultural worker

Occupation 61131 Landscape/Plant nursery supervisor

Landscape/Plant nursery supervisor plans work schedules and assigns duties to gardeners, horticultural and nursery workers. He/she implements plant propagation practices, and maintains and monitors production systems in addition to ensuring that plants are in the optimal condition for sale or delivery for landscape projects.

Example(s) of job not classified under this code:

- Plant nursery manager, see 13100
- Landscape nursery worker, see 92142
- Golf course labourer, see 92149

Occupation 61132 Plant nursery worker

Plant nursery worker operates a plant nursery to cultivate and maintain trees, shrubs, flowers and other plants for sale or delivery for landscape projects. He/she performs tasks such as plant propagation, watering, pruning, fertilising, and pest or disease treatment.

Example(s) of job classified under this code:

- Farm worker (nursery)
- Flower and orchid farmer
- Greenhouse worker (nursery)
- Nursery transplanter

Occupation 61133 Gardener/Horticultural worker

Gardener/Horticultural worker performs operations work in nurseries or greenhouses for the production of horticultural crops. He/she cultivates flowers, trees, shrubs and other plants in parks or in public or private gardens.

Example(s) of job classified under this code:

- Landscape technician

Example(s) of job not classified under this code:

- Horticultural technician, see 31421
- Tree worker/technician, see 92141
- Gardening labourer, see 92142
- Landscape worker, see 92142

MINOR GROUP 612 ANIMAL PRODUCERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 6121 Livestock and Dairy Farm Workers
- 6122 Poultry Farm Workers

Unit Group 6121 Livestock and Dairy Farm Workers

Livestock and dairy farm workers perform farming operations to breed and raise domesticated animals (excluding poultry), such as cattle, sheep, pigs, goats, horses and camels, for the production of meat, milk and other dairy products, skins, and wool or for use as working, sporting or recreational animals for sale or delivery to wholesale buyers, marketing organisations or at markets.

Tasks include:

- cultivating pastures and providing and monitoring fodder and water supplies to maintain appropriate nutritional levels and condition of livestock
- monitoring and examining animals to detect illness, injury, or disease, and to check physical condition such as rate of weight gain
- grooming, marking, clipping, trimming, drenching and/or castrating animals and shearing coats to collect hair or wool
- herding livestock to pastures for grazing or to scales, sheds, vehicles, or other enclosures
- milking animals by hand or using milking machines
- mixing feed, additives, and medicines in prescribed portions and distributing or hand-feeding to animals for consumption
- performing duties related to livestock reproduction, such as breeding, artificial insemination and helping with animal births
- maintaining and cleaning farm buildings, machinery, equipment, and structures slaughtering and skinning animals and preparing them for market
- storing and carrying out some processing of animal and dairy produce

- promoting and marketing products, arranging the sale, purchase and transportation of livestock, produce and supplies and maintaining and evaluating records of farm activities and transactions

Occupation(s) in this Unit Group:

- 61210 Livestock/Dairy farm worker

Occupation 61210 Livestock/Dairy farm worker

Livestock/Dairy farm worker breeds and raises domesticated animals (excluding poultry), such as cattle, sheep, pigs, goats, horses and camels, for the production of meat, milk and other dairy products, skins and wool or for use as working, sporting or recreational animals, for sale or delivery to wholesale buyers, marketing organisations or at markets.

Example(s) of job classified under this code:

- Farm supervisor (livestock)
- Stable hand

Example(s) of job not classified under this code:

- Livestock farm hand, see 92190

Unit Group 6122 Poultry Farm Workers

Poultry farm workers perform farming operations to breed and raise chickens, turkeys, geese, ducks and other poultry to produce meat, eggs and breeding stock for sale or delivery to wholesale buyers, marketing organisations or at markets.

Tasks include:

- growing and purchasing feed and other supplies needed to maintain appropriate nutritional levels and condition of poultry
- monitoring and examining poultry to detect illness, injury or disease, and to check physical condition, such as rate of weight gain, and removing weak, ill and dead poultry from flock
- mixing feed and feed additives and filling feed and water containers
- vaccinating poultry via drinking water, injection or dusting of air
- collecting and storing eggs and packaging them for sale delivery to market
- determining sex of chicks and facilitating breeding, artificial insemination and hatching of eggs
- renting or investing in and maintaining and cleaning farm buildings, machinery, equipment, and structures
- slaughtering and dressing poultry for sale or delivery to market
- storing and carrying out some processing of produce
- arranging the sale, purchase and transportation stock, produce and supplies

Occupation(s) in this Unit Group:

- 61220 Poultry farm worker

Occupation 61220 Poultry farm worker

Poultry farm worker performs farming operations to breed and raise poultry for eggs or meat. He/she specialises in raising poultry, such as fowls, ducks, geese and turkeys. He/she may also collect semen from roosters and fertilise hens to obtain hatching eggs.

Example(s) of job classified under this code:

- Chicken farmer
- Incubator operator
- Poultry breeder
- Poultry hatcher and breeder
- Poultry inseminator

Example(s) of job not classified under this code:

- Farm manager, see 13100

MINOR GROUP 619 AGRICULTURAL WORKERS NOT ELSEWHERE CLASSIFIED

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 6190 Agricultural Workers Not Elsewhere Classified

Unit Group 6190 Agricultural Workers Not Elsewhere Classified

This unit group covers agricultural workers not elsewhere classified.

Tasks include:

- preparing soil by hand or machine, and spreading fertilisers and manure
- selecting and sowing seeds, and planting seedlings
- maintaining crops by cultivating soil, by transplanting, pruning or thinning trees and shrubs, and by setting up and operating irrigation equipment
- controlling weeds, pests and diseases, by applying herbicides and pesticides
- tending trees or bushes, collecting sap and harvesting crops
- producing saplings, bulbs and seeds
- growing flowers and vegetables by intensive cultivation

- harvesting crops inspecting, cleaning, grading, packaging, storing and loading products for sale or delivery to market
- maintaining farm buildings, structures, equipment and water supply systems
- storing and carrying out some processing of produce
- promoting and marketing products, arranging the sale, purchase and transportation of produce and supplies and maintaining and evaluating records of farm activities and transactions

Occupation(s) in this Unit Group:

- 61900 Agricultural worker n.e.c.

Occupation 61900 Agricultural worker n.e.c.

This group covers agricultural worker not elsewhere classified.

Example(s) of job classified under this code:

- Farm worker (orchard)
- Forestry worker
- Mixed farm worker
- Rubber farmer

Example(s) of job not classified under this code:

- Crop picker, see 92190

SUB-MAJOR GROUP 62 FISHERY WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 622 FISHERY WORKERS

MINOR GROUP 622 FISHERY WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 6221 Aquaculture Workers
- 6222 Coastal Waters and Deep Sea Fishery Workers

Unit Group 6221 Aquaculture Workers

Aquaculture workers breed and raise fish and cultivate mussels, oysters and other forms of aquatic life including crocodiles, for sale or delivery on a regular basis to wholesale buyers, marketing organisations or at markets.

Tasks include:

- breeding, raising and cultivating fish, mussels, oysters and other forms of aquatic life as cash crops or for release into freshwater or saltwater
- collecting and recording growth, production and environmental data
- conducting and supervising stock examinations in order to identify diseases or parasites
- monitoring environments to ensure maintenance of optimum conditions for aquatic life
- directing and monitoring trapping and spawning of fish, egg incubation, and fry rearing, applying knowledge of management and fish culturing techniques
- cleaning, freezing, icing or salting catch on or offshore and preparing fish and other products for shipment
- maintaining buildings, tanks, machinery, boats and other equipment
- delivering or marketing products
- renting or investing in buildings, equipment and machinery and purchasing food and other supplies
- supervising and training aquaculture and fish hatchery support workers

Occupation(s) in this Unit Group:

- 62211 Fish/Prawn farm worker
- 62212 Aquarium fish farm worker
- 62219 Aquaculture worker n.e.c.

Occupation 62211 Fish/Prawn farm worker

Fish/Prawn farm worker performs a variety of tasks in the breeding and raising of fishes and prawns. He/she obtains and hatches fish eggs or buys young fish (fry) from fish hatcheries. He/she collects, sorts and markets fishes and prawns for food or for stocking rivers, lakes and other fishing grounds.

Example(s) of job classified under this code:

- Fish hatcher
- Prawn farmer

Example(s) of job not classified under this code:

- Agriculture production manager, see 13100
- Aquaculturist, see 21322
- Aquaculture support worker, see 92190

Occupation 62212 Aquarium fish farm worker

Aquarium fish farm worker breeds and raises aquarium fish for sale. He/she buys young fish (fry) and transfers fry to aquariums and provides required foods. He/she collects, sorts and packs aquarium fish for sale.

Example(s) of job classified under this code:

- Aquarium fish breeder
- Fish hatchery worker (aquarium)

Occupation 62219 Aquaculture worker n.e.c.

This group covers aquaculture worker not elsewhere classified.

Example(s) of job classified under this code:

- Crocodile farm worker
- Oyster farm worker

Unit Group 6222 Coastal Waters and Deep Sea Fishery Workers

Coastal waters and deep sea fishery workers, alone, or either as skippers or members of fishing crews, catch fish or gather other forms of aquatic life in deep sea, inland or coastal waters for sale or delivery to wholesale buyers, marketing organisations or at markets.

Tasks include:

- preparing and repairing nets and other fishing gear and equipment
- selecting area for fishing, plotting courses and computing navigational positions using compass, charts and other aids
- commanding and operating fishing vessels to, from and at fishing grounds
- steering vessels and operating navigational instruments and electronic fishing aids
- baiting, setting, operating and hauling in fishing gear by hand or using hoisting equipment
- gathering various forms of aquatic life from shores and shallow waters
- maintaining engine fishing gear and other on-board equipment
- keeping records of transactions, fishing activities, weather and sea conditions on ship’s log and estimating costs and budgets
- cleaning, freezing, icing or salting catch on or offshore, followed by sorting, and storing catch in holds with salt and ice
- removing catches from fishing equipment, measuring them to ensure compliance with legal size and returning undesirable or illegal catches to the water

- directing fishing operations and supervising fishing crew members
- selecting and training vessel crews

Occupation(s) in this Unit Group:

- 62220 Coastal waters/Deep sea fishery worker

Occupation 62220 Coastal waters/Deep sea fishery worker

Coastal waters/Deep sea fishery worker, alone, or either as skipper or member of fishing crews, catches fish or gathers other forms of aquatic life in deep sea, inland or coastal waters for sale or delivery to wholesale buyers, marketing organisations or at markets.

Example(s) of job classified under this code:

- Kelong fisherman
- Trawler crewman

Example(s) of job not classified under this code:

- Fishery manager, see 13100

MAJOR GROUP 7 CRAFTSMEN AND RELATED TRADES WORKERS

Occupation(s) in this Major Group are classified into the following Sub-major Group(s):

- 71 BUILDING AND RELATED TRADES WORKERS (EXCLUDING ELECTRICIANS)
- 72 METAL, MACHINERY AND RELATED TRADES WORKERS
- 73 PRECISION, HANDICRAFT, PRINTING AND RELATED TRADES WORKERS
- 74 ELECTRICAL AND ELECTRONIC TRADES WORKERS
- 75 FOOD PROCESSING, WOODWORKING, GARMENT, LEATHER AND OTHER CRAFT AND RELATED TRADES WORKERS

SUB-MAJOR GROUP 71 BUILDING AND RELATED TRADES WORKERS (EXCLUDING ELECTRICIANS)

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 710 SUPERVISORS AND GENERAL FOREMEN (BUILDING AND RELATED TRADES)
- 711 BUILDING FRAME AND RELATED TRADES WORKERS
- 712 BUILDING FINISHERS AND RELATED TRADES WORKERS
- 713 PAINTERS, BUILDING STRUCTURE CLEANERS AND RELATED WORKERS

MINOR GROUP 710 SUPERVISORS AND GENERAL FOREMEN (BUILDING AND RELATED TRADES)

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7100 Supervisors and General Foremen (Building and Related Trades)

Unit Group 7100 Supervisors and General Foremen (Building and Related Trades)

Supervisors and general foremen (building and related trades) supervise activities of a distinct unit at a construction site, control and coordinate the activities of workers who are engaged in various occupations.

Tasks include:

- interpreting specifications and job orders
- determining sequence of operations and use of equipment
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems

- coordinating the work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 71000 Supervisor/General foreman (building and related trades)

Occupation 71000 Supervisor/General foreman (building and related trades)

Supervisor/General foreman (building and related trades) supervises activities of a distinct unit at a construction site, controls and coordinates the activities of workers who are engaged in various occupations.

Example(s) of job classified under this code:

- Architectural supervisor
- Building construction general foreman
- Civil engineering construction supervisor
- Construction chargehand
- Plumbing installation and repair supervisor

MINOR GROUP 711 BUILDING FRAME AND RELATED TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7112 Bricklayers and Related Workers
- 7113 Stone Cutters, Splitters, Carvers and Stonemasons
- 7114 Concrete Placers, Concrete Finishers and Related Workers
- 7115 Carpenters and Joiners
- 7119 Building Frame and Related Trades Workers Not Elsewhere Classified

Unit Group 7112 Bricklayers and Related Workers

Bricklayers and related workers lay bricks, pre-cut stones and other types of building stones in mortar to construct and repair walls, partitions, arches and other structures.

Tasks include:

- laying stone, brick and similar building blocks to construct or repair walls, partitions, fireplaces and other structures such as smokestacks, furnaces, converters, kilns and ovens, piers and abutments

- laying footpaths, kerbs and pavements
- laying bricks or other masonry to build patios, garden walls and other decorative installations

Occupation(s) in this Unit Group:

- 71120 Bricklayer/Blocklayer

Occupation 71120 Bricklayer/Blocklayer

Bricklayer/Blocklayer lays bricks, pre-cut stones and other types of building stones in mortar to construct and repair walls, partitions, arches and other structures.

Example(s) of job classified under this code:

- Kerbs installer
- Kiln bricklayer

Example(s) of job not classified under this code:

- Stonemason (construction), see 71130
- Building construction labourer, see 93100

Unit Group 7113 Stonemasons, Stone Cutters, Splitters and Carvers

Stonemasons, stone cutters, splitters and carvers cut and shape hard and soft stone blocks and slabs for the construction and maintenance of stone structures and monumental masonry and carve designs and figures in stones.

Tasks include:

- driving wedges into quarried stone to break it into slabs or blocks
- selecting and grading slabs of blocks of granite, marble and other stone
- cutting, shaping and finishing building and monumental stone such as granite or marble by hand or using hand-powered tools
- making patterns and marking shapes on stone for subsequent sawing, planning, drilling and other dressing and cutting operations
- cutting and carving characters, figures or designs on stone blocks used for monuments or memorials
- setting stone in the erection of monuments or memorials
- repairing and replacing stonework on old buildings, churches and monuments

Occupation(s) in this Unit Group:

- 71130 Stonemason/Stone cutter/splitter/carver

Occupation 71130 Stonemason/Stone cutter/splitter/carver

Stonemason/Stone cutter/splitter/carver cuts and shapes hard and soft stone blocks and slabs for the construction and maintenance of stone structures and monumental masonry and carves designs and figures in stones.

Example(s) of job classified under this code:

- Granite polisher
- Marble polisher
- Stone grader
- Stonemason (construction)

Example(s) of job not classified under this code:

- Blocklayer, see 71120
- Mosaic cutter and setter, see 71220

Unit Group 7114 Concrete Placers, Concrete Finishers and Related Workers

Concrete placers, concrete finishers and related workers erect reinforced concrete frameworks and structures, make forms for moulding concrete, reinforce concrete surfaces, cement openings in walls or casing for wells, finish and repair cement surfaces and carry out terrazzo work.

Tasks include:

- constructing and repairing reinforced concrete floors, walls, tanks, silos and other concrete structures
- making shuttering or assembling pre-fabricated forms for moulding concrete
- cementing openings in walls or casings for wells
- finishing and smoothing surfaces of concrete structures
- applying a durable, smooth surfacing composed of cement, sand pigment and marble particles to floors, known as a terrazzo finish

Occupation(s) in this Unit Group:

- 71141 Concrete form worker
- 71142 Cement finisher/Screeder
- 71149 Concrete placer/finisher and related worker n.e.c.

Occupation 71141 Concrete form worker

Concrete form worker builds, assembles, places in position and dismantles rough wooden structures (shuttering) into which concrete is poured and allowed to set. He/she marks out,

cuts and adjusts wood to be assembled in shuttering partitions or assembles shuttering from prefabricated wooden parts.

Example(s) of job classified under this code:

- Concrete shutterer

Example(s) of job not classified under this code:

- Concrete finishing machine operator (road paving), see 83429

Occupation 71142 Cement finisher/Screeder

Cement finisher/Screeder finishes surfaces of concrete structures and smooths surfaces of freshly poured concrete sections. He/she cuts ridges, bumps and projecting wire from concrete surface with chisel and hammer. He/she patches holes and broken corners by wetting them.

Example(s) of job classified under this code:

- Concrete finisher

Occupation 71149 Concrete placer/finisher and related worker n.e.c.

This group covers concrete placer/finisher and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Concrete curer
- Precast concrete erector

Example(s) of job not classified under this code:

- Road surface laying machine operator, see 83429

Unit Group 7115 Carpenters and Joiners

Carpenters and joiners cut, shape, assemble, erect, maintain and repair various types of structures and fittings made from wood and other materials.

Tasks include:

- making, altering and repairing structural and other woodwork at a work-bench or on a construction site
- constructing, erecting and installing heavy-framed wooden structures on building sites
- fitting, assembling and altering internal and external fixtures of buildings, such as walls, doors, door and window frames, facings and panelling

- making, repairing and fitting scenic equipment for theatrical performances, motion picture or television productions
- constructing, assembling, altering and repairing wooden fixtures and fittings in train coaches, aircraft, ships, boats, floats and other vehicles

Occupation(s) in this Unit Group:

- 71151 Carpenter
- 71152 Joiner

Occupation 71151 Carpenter

Carpenter cuts out, assembles, erects and repairs structural and other woodwork at work bench or on construction site. He/she works from plans, sketches or instructions received and marks out reference points accordingly to facilitate cutting and shaping.

Example(s) of job classified under this code:

- Barge builder (wood)
- Billboard erector
- Wood shipwright

Example(s) of job not classified under this code:

- Furniture maker (wood), see 75220

Occupation 71152 Joiner

Joiner fits, assembles and installs wooden internal and external fixtures of buildings such as door and window frames, facings and panelling in workshop or on site. He/she may make parts of woodwork.

Example(s) of job classified under this code:

- Door installer
- Window grills installer

Unit Group 7119 Building Frame and Related Trades Workers Not Elsewhere Classified

This unit group covers building frame and related trades workers not elsewhere classified.

Tasks include:

- climbing and performing miscellaneous construction and building maintenance work on structures such as towers, chimneys and spires
- erecting temporary metal or wooden scaffolding on building sites

- demolishing buildings and other structures

Occupation(s) in this Unit Group:

- 71191 Scaffolder
- 71192 Cladding/Curtain wall erector
- 71199 Other building frame and related trades worker n.e.c.

Occupation 71191 Scaffolder

Scaffolder erects temporary metal or wooden scaffolding on building sites for construction, renovation, exterior painting and similar purposes. He/she fixes upright members in place and secures horizontal members to uprights to support platforms.

Example(s) of job classified under this code:

- Scaffolding rigger

Example(s) of job not classified under this code:

- Hoisting equipment rigger, see 72150

Occupation 71192 Cladding/Curtain wall erector

Cladding/Curtain wall erector installs cladding and curtain wall for the external walls of buildings.

Example(s) of job not classified under this code:

- Building construction labourer, see 93100

Occupation 71199 Other building frame and related trades worker n.e.c.

This group covers other building frame and related trades worker not elsewhere classified.

Example(s) of job classified under this code:

- Demolition worker
- Prefabricated building section assembler
- Steeplejack

Example(s) of job not classified under this code:

- Sandblaster (building exteriors), see 71332
- Building construction labourer, see 93100

MINOR GROUP 712 BUILDING FINISHERS AND RELATED TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7121 Roofers
- 7122 Floor Layers and Tile Setters
- 7123 Plasterers
- 7124 Insulation Workers
- 7125 Glaziers
- 7126 Plumbers, Pipe Fitters and Related Workers
- 7127 Air-Conditioning and Refrigeration Mechanics
- 7129 Building Finishers and Related Trades Workers Not Elsewhere Classified

Unit Group 7121 Roofers

Roofers build and repair roofs on all types of buildings using one or more kinds of materials.

Tasks include:

- studying drawings, specifications and construction sites to determine materials required
- covering roof frameworks with slate and pre-fabricated tiles to cover pitched roofs
- laying a waterproof shield and fixing metallic or synthetic materials to a building's frame
- sizing and cutting roofing materials to fit around edges corners and protuberances such as chimney
- using natural materials such as thatching to provide roof coverings
- creating temporary structures such as scaffolding and ladders

Notes:

Installers of metal roofing are classified in Unit Group 7121 'Roofers'. Workers who make sheet metal products for adaptation and installation by roofers are classified in Unit Group 7213 'Sheet Metal Workers'.

Occupation(s) in this Unit Group:

- 71210 Roofer

Occupation 71210 Roofer

Roofer builds and repairs roofs on all types of buildings using one or more kinds of materials. He/she builds, repairs and covers roofs of structures with shingles, slate, asphalt, aluminium,

wood, or related materials. He/she may spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures.

Example(s) of job classified under this code:

- Metal roofer
- Roofing contractor
- Roofing plumber
- Slate and tile roofer
- Thatcher

Example(s) of job not classified under this code:

- Sheet metal worker, see 72130

Unit Group 7122 Floor Layers and Tile Setters

Floor layers and tile setters install, maintain and repair flooring, and cover floors, walls and other surfaces with tiles or mosaic panels for decorative or other purposes.

Tasks include:

- preparing floor areas for covering with a variety of materials
- assembling carpet, tiles or other materials and laying them on floors according to design and other specifications
- preparing wall areas for covering with tiles or other materials for decorative or other purposes such as acoustic insulation
- setting tiles and construction and laying mosaic panels to walls, floors and other surfaces

Occupation(s) in this Unit Group:

- 71220 Floor/Wall tiler

Occupation 71220 Floor/Wall tiler

Floor/Wall tiler installs, maintains and repairs flooring, and covers floors, walls and other surfaces with tiles or mosaic panels for decorative or other purposes. He/she cuts tiles to the right size and shape, prepares the surface, and puts the tiles in place flush and straight.

Example(s) of job classified under this code:

- Floor layer (composition tiles)
- Mosaic cutter and setter
- Parquetry worker

- Timber flooring worker

Example(s) of job not classified under this code:

- Granite polisher, see 71130

Unit Group 7123 Plasterers

Plasterers install, maintain and repair plasterboard in buildings, and apply decorative and protective coverings of plaster, cement and similar material to the interiors and exteriors of structures.

Tasks include:

- applying one or more coats of plaster to interior walls and ceilings of buildings to produce finished surface
- measuring, marking and installing ornamental plastic panels, and casting and trimming ornamental plastic cornices
- applying protective and decorative covering of cement, plastic and similar materials to exterior building surfaces
- making and installing decorative plastic fixtures of fibrous plaster

Occupation(s) in this Unit Group:

- 71230 Plasterer

Occupation 71230 Plasterer

Plasterer installs, maintains and repairs plasterboard in buildings, and applies decorative and protective coverings of plaster, cement and similar material to the interiors and exteriors of structures. He/she applies one or more coats of plaster to interior walls and ceilings of buildings to produce a finished surface.

Example(s) of job classified under this code:

- Dry wall installer (plasterer)
- Partition installer (plaster)

Unit Group 7124 Insulation Workers

Insulation workers apply and repair insulating materials to buildings, boilers, pipes or refrigeration and air-conditioning equipment.

Tasks include:

- cutting insulation material by shape and size

- applying slabs and sheets of insulating or sound-absorbing materials to walls, floors and ceilings of buildings
- blowing and packing insulating or sound-absorbing materials into cavities between walls, floors and ceilings of buildings with power-driven machines
- examining plans, specifications and work sites to determine the type, quality and quantity of insulation material required
- applying insulation materials to exposed surfaces of equipment such as boilers, pipes and tanks
- insulating refrigeration and air-conditioning equipment

Occupation(s) in this Unit Group:

- 71241 Refrigeration/Air-conditioning equipment insulator
- 71242 Boiler/Pipe insulator
- 71249 Insulation worker n.e.c.

Occupation 71241 Refrigeration/Air-conditioning equipment insulator

Refrigeration/Air-conditioning equipment insulator applies and repairs insulating materials to buildings, boilers, pipes or refrigeration and air-conditioning equipment. He/she examines plans, specifications and work sites to determine the type, quality and quantity of insulation material required.

Occupation 71242 Boiler/Pipe insulator

Boiler/Pipe insulator applies insulating material such as asbestos, cork, felt or mineral wool to exposed surfaces of equipment such as boilers, pipes and tanks.

Example(s) of job classified under this code:

- Boiler and pipe insulator

Occupation 71249 Insulation worker n.e.c.

This group covers insulation worker not elsewhere classified.

Example(s) of job classified under this code:

- Building insulator
- Sound proofing insulator
- Waterproofing worker

Unit Group 7125 Glaziers

Glaziers measure, cut, finish, fit and install flat glass and mirrors.

Tasks include:

- selecting the type of glass to be used, cutting to right size and shape and installing in windows, doors, showers and partitions of buildings
- installing glass and mirrors in skylights, display cases, interior walls and ceilings
- installing or replacing windscreens in vehicles or boats
- creating decorative glass features such as glass walls, staircases, balustrades and stained-glass windows

Occupation(s) in this Unit Group:

- 71250 Glazier

Occupation 71250 Glazier

Glazier measures, cuts, finishes, fits and installs flat glass and mirrors. He/she cuts glass with cutting tool according to pattern or outline and smooths rough edges.

Example(s) of job classified under this code:

- Building glazier
- Glass fitter
- Glass installer (vehicles)
- Glass setter (building)

Example(s) of job not classified under this code:

- Glass cutter, see 73150

Unit Group 7126 Plumbers, Pipe Fitters and Related Workers

Plumbers, pipe fitters and related workers assemble, install, repair and maintain pipe systems, fittings and fixtures for water, gas, drainage, sewage systems, and hydraulic and pneumatic equipment.

Tasks include:

- measuring, cutting, threading, bending, jointing, assembling, installing, maintaining and repairing pipes, fittings and fixtures of drainage, heating water supply and sewage systems
- installing gas appliances, dishwashers and water heaters, sinks and toilets using hand and power tools
- laying clay, concrete or cast-iron pipes in ditches to form sewers, drains or water mains, or for other purposes

- inspecting, examining and testing installed systems and pipes, using pressure gauge, hydrostatic testing, observation or other methods

Notes:

Installers of metal drains, gutters and ducts are classified in Unit Group 7126 ‘Plumbers, Pipe Fitters and Related Workers’. Workers who make sheet metal products for adaptation and installation by plumbers are classified in Unit Group 7213 ‘Sheet Metal Workers’.

Occupation(s) in this Unit Group:

- 71261 Plumber
- 71262 Pipe fitter
- 71263 Pipe/Drain layer

Occupation 71261 Plumber

Plumber assembles, installs and maintains pipes, fittings and fixtures of drainage, heating, water supply and sanitary systems. He/she examines drawings and other specifications, locates and marks position of pipe and pipe connections and passage holes for pipes in walls and floors.

Example(s) of job classified under this code:

- Pool and filtration system worker
- Sanitary and plumbing worker

Occupation 71262 Pipe fitter

Pipe fitter assembles, installs and maintains high-pressure and low-pressure systems of metal pipes for conducting air, gas, steam, oil, water and other fluids. He/she finds and repairs leaks, joints, couplings and other fittings.

Example(s) of job classified under this code:

- Aircraft pipe and tube fitter
- Gas pipe fitter
- Marine pipe fitter
- Steam pipe fitter

Example(s) of job not classified under this code:

- Air-conditioning/Refrigeration equipment mechanic, see 71271
- Air-conditioning/Refrigeration equipment installer, see 71272

Occupation 71263 Pipe/Drain layer

Pipe/Drain layer lays pipes of glazed and unglazed clay, concrete, cast-iron and other materials in ditches to form sewers, drains, water mains and conduits for cables and other purposes. He/she smooths bottom of ditch to proper level and cuts out place for bell end of pipe.

Example(s) of job classified under this code:

- Mains layer and jointer

Unit Group 7127 Air-Conditioning and Refrigeration Mechanics

Air-conditioning and refrigeration mechanics assemble, install, maintain and repair air-conditioning and refrigeration systems and equipment.

Tasks include:

- interpreting blueprints, drawings or other specifications
- assembling, installing and repairing components for air-conditioning and refrigeration systems
- connecting piping equipment by bolting, riveting, welding or brazing
- testing systems, diagnosing faults and performing routine maintenance or servicing

Occupation(s) in this Unit Group:

- 71271 Air-conditioning/Refrigeration equipment mechanic
- 71272 Air-conditioning/Refrigeration plant installer

Occupation 71271 Air-conditioning/Refrigeration equipment mechanic

Air-conditioning/Refrigeration equipment mechanic maintains and repairs industrial, commercial and domestic air-conditioning and refrigeration systems and equipment.

Example(s) of job classified under this code:

- Air-conditioning servicer
- Refrigerator servicer

Example(s) of job not classified under this code:

- Air-conditioning/Refrigeration engineering technician, see 31152
- Plumber, see 71261
- Aircraft pipe and tube fitter, see 71262
- Drain layer, see 71263
- Air-conditioning/Refrigeration equipment installer, see 71272

Occupation 71272 Air-conditioning/Refrigeration plant installer

Air-conditioning/Refrigeration plant installer installs residential central air-conditioning systems, commercial and industrial refrigeration and air-conditioning systems.

Example(s) of job not classified under this code:

- Air-conditioning/Refrigeration engineering technician, see 31152
- Air-conditioning/Refrigeration equipment mechanic, see 71271

Unit Group 7129 Building Finishers and Related Trades Workers Not Elsewhere Classified

This unit group covers building finishers and related trades workers not elsewhere classified.

Tasks include:

- performing miscellaneous installation, maintenance and repair work on structures such as office buildings, apartment houses, factories and similar establishments in good repair
- performing construction, maintenance or repair work at unusual heights
- performing related tasks

Occupation(s) in this Unit Group:

- 71290 Building finisher and related trades worker n.e.c.

Occupation 71290 Building finisher and related trades worker n.e.c.

This group covers building finisher and related trades worker not elsewhere classified.

Example(s) of job classified under this code:

- Carpet layer
- Signage installer (non-electronic)

MINOR GROUP 713 PAINTERS, BUILDING STRUCTURE CLEANERS AND RELATED WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7131 Building Painters and Related Workers
- 7132 Spray Painters, Varnishers and Related Painters
- 7133 Building Maintenance Workers, Building Structure Cleaners and Related Workers

Unit Group 7131 Building Painters and Related Workers

Building painters and related workers prepare surfaces of buildings and other structures for painting, apply protective and decorative coats of paint or similar materials, or cover interior walls and ceilings of buildings with wallpaper or other finishes.

Tasks include:

- cleaning and preparing walls and other surfaces of buildings for painting or wallpapering
- selecting and preparing paints to required colours by mixing pigments and additives
- applying or spraying paint, varnish and similar materials to surfaces, fixtures and fittings of buildings
- measuring and hanging wallpaper or other fabrics on interior walls and ceilings
- applying paints, varnishes and stains to surfaces using brushes, rollers and sprays

Occupation(s) in this Unit Group:

- 71311 Building painter
- 71312 Wall/Ceiling paperhanger

Occupation 71311 Building painter

Building painter paints walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. He/she may remove old paint to prepare surface prior to painting and mix colours or oils to obtain the desired colour or consistency.

Example(s) of job classified under this code:

- Construction painter
- House painter

Example(s) of job not classified under this code:

- Artist (painting), see 26511
- Ship hull painter, see 71321
- Glass decorator-painter, see 73160

Occupation 71312 Wall/Ceiling paperhanger

Wall/Ceiling paperhanger covers interior walls and ceilings of buildings with wallpaper. He/she removes old paper with scraper, water and chemicals, and also cleans surface, fills cracks and holes with plaster and brushes sizing on surfaces.

Example(s) of job classified under this code:

- Wallpaper hanger

Unit Group 7132 Spray Painters, Varnishers and Related Painters

Spray painters, varnishers and related painters operate spray painting and varnishing equipment to apply protective coatings to manufactured items or structures.

Tasks include:

- preparing surfaces to be coated using a variety of methods to remove grease, dirt and rust
- painting cars, buses, trucks and other vehicles, and applying varnish and other protective coatings
- applying paint as well as protective coatings of enamel or varnish on metal, wooden and other manufactured products, usually with a hand-spraying device

Occupation(s) in this Unit Group:

- 71321 Structural steel/Ship painter
- 71322 Motor vehicle spray painter
- 71323 Spray painter (excluding ships and motor vehicles)
- 71329 Spray painter/Varnisher and related painter n.e.c.

Occupation 71321 Structural steel/Ship painter

Structural steel/Ship painter applies coatings of paint, red lead, bituminous emulsion and similar protective materials on bridges, ships' hulls and metal superstructure, steel framework of buildings, storage tanks and other metal structures. He/she rigs up scaffolding, cradles, ladders and other equipment, and scrapes dirt, rust or scale from surface to be painted.

Example(s) of job classified under this code:

- Ship hull painter

Example(s) of job not classified under this code:

- Construction painter, see 71311
- Spray painter (excluding ships and motor vehicles), see 71323

Occupation 71322 Motor vehicle spray painter

Motor vehicle spray painter paints automotive vehicles such as automobiles, buses and trucks. He/she removes paint from vehicle or damaged parts using paint solvent and scraper, applies base coating and rubs it down to smooth surface.

Example(s) of job classified under this code:

- Automobile repair painter
- Motorcycle painter

Example(s) of job not classified under this code:

- Spray painter (excluding ships and motor vehicles), see 71323

Occupation 71323 Spray painter (excluding ships and motor vehicles)

Spray painter (excluding ships and motor vehicles) applies decorative and protective coatings of paint, enamel and lacquer on metal, wooden and other manufactured articles with a hand-spraying device. He/she selects and mixes paints to obtain the desired colour, and pours coating material into tank of spraying device.

Example(s) of job classified under this code:

- Spray painter (industrial)

Example(s) of job not classified under this code:

- Ship hull painter, see 71321
- Motor vehicle spray painter, see 71322
- Decorative painter, see 73160
- Metal sprayer, see 81240

Occupation 71329 Spray painter/Varnisher and related painter n.e.c.

This group covers spray painter/varnisher and related painter not elsewhere classified.

Example(s) of job classified under this code:

- Highway lane marker
- Painter-retoucher (manufacturing)
- Stage scenery painter

Example(s) of job not classified under this code:

- Building painter, see 71311
- Spray painter (ceramics), see 73160
- Metal sprayer, see 81240

Unit Group 7133 Building Maintenance Workers, Building Structure Cleaners and Related Workers

Building maintenance workers, building structure cleaners and related workers clean exterior surfaces of buildings and other structures, and remove soot from chimneys. They also perform maintenance work on buildings and other related works.

Tasks include:

- performing miscellaneous construction and building maintenance work on structures such as office buildings, apartment houses, factories and similar establishments in good repair
- cleaning exterior surfaces of stone, brick, metal or similar materials by means of chemicals, or a jet of steam or sand applied under high pressure
- removing soot from flues, chimneys and connecting pipes
- removing asbestos, mould and fire-damaged surfaces from buildings

Occupation(s) in this Unit Group:

- 71331 Building maintenance worker
- 71332 Building structure cleaner and related worker

Occupation 71331 Building maintenance worker

Building maintenance worker keeps structures such as office buildings, apartment houses, hotels and factory buildings in good condition. He/she performs concreting, bricklaying, carpentry, painting and other construction maintenance duties, and replaces defective electrical switches and other fixtures.

Example(s) of job classified under this code:

- Building repairer

Occupation 71332 Building structure cleaner and related worker

Building structure cleaner and related worker cleans and refurbishes building exteriors, carpets, chimneys, industrial equipment, ventilation systems, windows and other surfaces, using specialised equipment and techniques.

Example(s) of job classified under this code:

- Building exterior cleaner
- Sandblaster (building exteriors)

Example(s) of job not classified under this code:

- Industrial establishment cleaner (outdoor), see 91132
- Window cleaner, see 91230

SUB-MAJOR GROUP 72 METAL, MACHINERY AND RELATED TRADES WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 720 SUPERVISORS AND GENERAL FOREMEN (METAL, MACHINERY AND RELATED TRADES)

- 721 SHEET AND STRUCTURAL METAL WORKERS, MOULDERS AND WELDERS AND RELATED TRADES WORKERS
- 722 BLACKSMITHS, TOOLMAKERS AND RELATED TRADES WORKERS
- 723 MACHINERY MECHANICS, FITTERS AND REPAIRERS

MINOR GROUP 720 SUPERVISORS AND GENERAL FOREMEN (METAL, MACHINERY AND RELATED TRADES)

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7200 Supervisors and General Foremen (Metal, Machinery and Related Trades)

Unit Group 7200 Supervisors and General Foremen (Metal, Machinery and Related Trades)

Supervisors and general foremen (metal, machinery and related trades) supervise production activities within a distinct unit of an establishment concerned with fabrication of metal products, preparation and erection of metal structures, or fitting and installing mechanical, and control and coordinate the activities of workers in various occupations.

Tasks include:

- interpreting specifications and job orders
- determining sequence of operations and use of equipment
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- coordinating the work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 72000 Supervisor/General foreman (metal/machinery and related trades)

Occupation 72000 Supervisor/General foreman (metal/machinery and related trades)

Supervisor/General foreman (metal/machinery and related trades) supervises production activities within a distinct unit of an establishment concerned with fabrication of metal products, preparation and erection of metal structures, or fitting and installing mechanical, and controls and coordinates the activities of workers in various occupations.

Example(s) of job classified under this code:

- Non-electronic machinery manufacturing and repair supervisor
- Ship building and repairing supervisor

MINOR GROUP 721 SHEET AND STRUCTURAL METAL WORKERS, MOULDERS AND WELDERS AND RELATED TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7211 Metal Moulders and Coremakers
- 7212 Welders and Flame Cutters
- 7213 Sheet Metal Workers
- 7214 Structural Metal Preparers and Erectors
- 7215 Riggers and Cable Splicers

Unit Group 7211 Metal Moulders and Coremakers

Metal moulders and coremakers make moulds and cores for casting metal.

Tasks include:

- making moulds by hand or using auxiliary machines on a bench for small metal castings, on the foundry floor, or in a pit for large castings
- making cores for use in metal moulds
- cleaning and smoothing moulds, core boxes, and repairing surface imperfections
- moving and positioning work pieces such as mould sections, patterns, and bottom boards, using cranes, or signalling others to move work pieces
- positioning work patterns inside mould sections and clamping sections together
- cutting sprouts, running holes and sprue holes into moulds
- lifting upper mould sections from lower sections and remove moulded patterns

Occupation(s) in this Unit Group:

- 72110 Metal moulder/coremaker

Occupation 72110 Metal moulder/coremaker

Metal moulder/coremaker makes moulds and cores for casting metal.

Example(s) of job classified under this code:

- Jarring machine moulder
- Stripping-plate machine moulder
- Tube coremaker

Example(s) of job not classified under this code:

- Machine-tool operator, see 81251

Unit Group 7212 Welders and Flame Cutters

Welders and flame cutters weld and cut metal parts using gas flame, electric arc and other sources of heat to melt and cut, or to melt and fuse metal.

Tasks include:

- welding metal parts using gas flame, or an electric arc, thermite compound or other methods
- operating resistance-welding machines
- using blowtorch to make and repair lead linings, pipes, floors and other lead fixtures
- brazing metal parts together
- cutting metal pieces using gas flame or an electric arc
- joining metal parts by hand soldering
- monitoring the fitting, burning, and welding processes to avoid overheating of parts or warping, shrinking, distortion, or expansion of material
- examining work pieces for defects and measuring work pieces with straight edges or templates to ensure conformance with specifications

Occupation(s) in this Unit Group:

- 72120 Welder/Flame cutter

Occupation 72120 Welder/Flame cutter

Welder/Flame cutter welds and cuts metal parts using gas flame, electric arc and other sources of heat to melt and cut, or to melt and fuse metal.

Example(s) of job classified under this code:

- Flame cutter
- Gas cutting machine operator (metal)
- Solderer

Unit Group 7213 Sheet Metal Workers

Sheet metal workers make, install and repair articles and parts of articles made out of sheet metal such as sheet steel, copper, tin, brass, aluminium, zinc or galvanised iron.

Tasks include:

- marking sheet metal for cutting and shaping
- making and repairing household utensils and other articles in tin, copper and light alloys, or ornamental articles and fittings
- making and repairing boilers, tanks, vats and similar containers
- installing and repairing sheet-metal parts of vehicles and aircraft
- converting blueprints into shop drawings to be followed in the construction and assembly of sheet metal products
- determining project requirements, including scope, assembly sequences, and required methods and materials, according to blueprints, drawings, and written or verbal instructions
- inspecting product quality and installation to ensure conformance to specifications

Notes:

Installers of metal roofing are classified in Unit Group 7121 'Roofers'. Installers of metal drains, gutters and ducts are classified in Unit Group 7126 'Plumbers, Pipe Fitters and Related Workers'. Workers who make sheet metal products for adaptation and installation by roofers and plumbers are classified in Unit Group 7213 'Sheet Metal Workers'.

Occupation(s) in this Unit Group:

- 72130 Sheet metal worker

Occupation 72130 Sheet metal worker

Sheet metal worker makes, installs and repairs articles and parts of articles made out of sheet metal such as sheet steel, copper, tin, brass, aluminium, zinc or galvanised iron.

Example(s) of job classified under this code:

- Auto-body repairer
- Boilermaking plater
- Coppersmith
- Panel beater (vehicle)
- Vehicle body repairer

Example(s) of job not classified under this code:

- Roofer, see 71210

Unit Group 7214 Structural Metal Preparers and Erectors

Structural metal preparers and erectors assemble, erect and dismantle structural metal frames of buildings and other structures.

Tasks include:

- marking metal framework as a guide when drilling, cutting, and shaping them for use in buildings, ships and other structures
- drilling, cutting and shaping structural steel in a workshop
- erecting steel framework for buildings, bridges and other constructions
- assembling and erecting the framework and other metal parts of ships' structures
- shaping and fitting structural-steel plates of ships under construction or repair
- riveting structural-metal members by hand, machine or pneumatic riveter

Occupation(s) in this Unit Group:

- 72140 Structural metal preparer/erector

Occupation 72140 Structural metal preparer/erector

Structural metal preparer/erector assembles, erects and dismantles structural metal frames of buildings and other structures.

Example(s) of job classified under this code:

- Concrete reinforcing iron worker
- Fencing worker
- Ship beam and frame erector
- Machine riveter
- Ship frame bender and turner

Unit Group 7215 Riggers and Cable Splicers

Riggers and cable splicers assemble rigging gear to move and position equipment and structural components, or install and maintain cables, ropes and wires on construction sites, buildings or other structures.

Tasks include:

- estimating the size, shape and weight of objects to be moved and deciding on the type of equipment to move them
- installing and repairing cables, ropes, wires, pulleys and other tackle

- joining, repairing and fitting attachments to wires, ropes and cables
- working as member of crew erecting and repairing derricks for drilling water, gas- and oil wells
- lifting and mounting scenery, lighting and other equipment in theatres and on film sets
- installing and maintaining communication towers, aerial cableways, funicular railways, ski lifts and similar infrastructure

Occupation(s) in this Unit Group:

- 72150 Rigger/Cable splicer

Occupation 72150 Rigger/Cable splicer

Rigger/Cable splicer assembles rigging gear to move and position equipment and structural components, or to install and maintain cables, ropes and wires on construction sites, buildings or other structures.

Example(s) of job classified under this code:

- Derrick-boat operator
- Hoisting equipment rigger
- Signaller and rigger (construction)
- Signalman
- Underwater cable splicer

Example(s) of job not classified under this code:

- Scaffolding rigger, see 71191
- Hoist operator (construction), see 83431

MINOR GROUP 722 BLACKSMITHS, TOOLMAKERS AND RELATED TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7221 Blacksmiths, Hammersmiths and Forging-Press Workers
- 7222 Toolmakers and Related Workers
- 7224 Metal Polishers, Wheel Grinders and Tool Sharpeners

Unit Group 7221 Blacksmiths, Hammersmiths and Forging-Press Workers

Blacksmiths, hammersmiths and forging-press workers hammer and forge bars, rods or ingots of iron, steel and other metals to make and repair various kinds of tools, equipment and other articles, set machine tools for operators or set and operate various machine tools and polish and sharpen surfaces.

Tasks include:

- hammering and forging iron, steel and other metals to make and repair various kinds of tools, equipment and other articles
- setting machine tools for operators or setting and operating various machine tools working to fine tolerances
- polishing and sharpening metal surfaces and tools

Occupation(s) in this Unit Group:

- 72210 Blacksmith/Hammersmith/Forging-press worker

Occupation 72210 Blacksmith/Hammersmith/Forging-press worker

Blacksmith/Hammersmith/Forging-press worker hammers and forges bars, rods or ingots of iron, steel and other metals to make and repair various kinds of tools, equipment and other articles, sets machine tools for operators or sets and operates various machine tools and polishes and sharpens surfaces.

Example(s) of job classified under this code:

- Drop forger
- Hot-press operator (forging)
- Ironmongery worker
- Toolsmith

Example(s) of job not classified under this code:

- Machine-tool operator, see 81251

Unit Group 7222 Toolmakers and Related Workers

Toolmakers and related workers make and repair custom made and specialised tools, sports guns, locks, dies, patterns machinery components and other metal articles using hand and machine tools to work metal to fine tolerances.

Tasks include:

- reading and interpreting engineering drawings and specifications of tools, dies, prototypes or models
- preparing templates and sketches and determining work processes
- visualising and computing dimensions, sizes, shapes, and tolerances of assemblies, based on specifications
- positioning, securing and measuring metal stock or castings to lay out for machining

- setting up, operating and maintaining conventional and computer numerically controlled machine tools to cut, turn, mill, plane, drill, bore, grind or otherwise shape workpiece to prescribed dimensions and finish
- fitting and assembling parts to make and repair jigs, fixtures and gauges
- repairing and modifying sports guns and other small arms
- making, fitting, assembling, repairing and installing lock parts and locks
- making and repairing metal patterns for preparation of foundry moulds
- laying out lines and reference points on metal stock to guide other workers who cut, turn, mill, grind or otherwise shape metal
- verifying dimensions, alignments and clearances of finished parts for conformance to specifications, using precision measuring instruments and testing completed items for proper operation

Occupation(s) in this Unit Group:

- 72221 Tool/Die maker
- 72222 Locksmith
- 72229 Toolmaker and related worker n.e.c.

Occupation 72221 Tool/Die maker

Tool/Die maker fits and assembles parts to make and repair metal-working dies, cutting tools, jig, fixtures, gauges, and machinists' hand tools. He/she studies drawings, models and other specifications, computes dimensions, plans layout and assembly operations.

Example(s) of job classified under this code:

- Press tool maker
- Jig and gauge maker

Occupation 72222 Locksmith

Locksmith assembles, installs and repairs locks. He/she examines lock parts to check accuracy of fit; chisels, files, scrapes and does other supplementary tooling to correct inaccuracies.

Example(s) of job classified under this code:

- Key and lock specialist

Occupation 72229 Toolmaker and related worker n.e.c.

This group covers toolmaker and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Gunsmith

Unit Group 7224 Metal Polishers, Wheel Grinders and Tool Sharpeners

Metal polishers, wheel grinders and tool sharpeners polish and grind metal surfaces and sharpen tools.

Tasks include:

- operating fixed or portable buffing and polishing machines
- sharpening cutting tools and instruments using grinding wheels or mechanically operated grinding machines
- repairing, adjusting and sharpening saw blades and metal teeth of cylinders in textile carding machines
- dressing grinding wheels, according to specifications
- monitoring machine operations to determine whether adjustments are necessary; stop machines when problems occur
- inspecting, feeling, and measuring work pieces to ensure that surfaces and dimensions meet specifications
- selecting and mounting grinding wheels on machines, according to specifications, using hand tools and applying knowledge of abrasives and grinding procedures

Occupation(s) in this Unit Group:

- 72240 Metal polisher/Wheel grinder/Tool sharpener

Occupation 72240 Metal polisher/Wheel grinder/Tool sharpener

Metal polisher/Wheel grinder/Tool sharpener polishes and grinds metal surfaces and sharpens tools.

Example(s) of job classified under this code:

- Edge tool sharpener
- Metal buffing and polishing machine operator
- Saw repairer and sharpener
- Tool grinder (excluding machine-tool)

Example(s) of job not classified under this code:

- Precision grinding machine setter-operator, see 81252

MINOR GROUP 723 MACHINERY MECHANICS, FITTERS AND REPAIRERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7231 Automotive Mechanics
- 7232 Aircraft Engine Mechanics and Repairers
- 7233 Rolling Stock Mechanics
- 7234 Bicycle and Related Repairers
- 7235 Marine Engine Mechanics and Repairers
- 7239 Machinery Mechanics, Fitters and Repairers Not Elsewhere Classified

Unit Group 7231 Automotive Mechanics

Automotive mechanics fit, install, maintain, service and repair engines and the mechanical and related equipment of passenger cars, delivery trucks, motorcycles and other motor vehicles.

Tasks include:

- detecting and diagnosing faults in engines and parts
- fitting, examining, testing and servicing motor vehicle and motorcycle engines
- replacing engine components or complete engines
- fitting, examining, adjusting, dismantling, rebuilding and replacing defective parts of motor vehicles
- installing or adjusting motors and brakes, and adjusting steering or other parts of motor vehicles
- installing, adjusting, servicing and replacing mechatronics components of motor vehicles
- performing scheduled maintenance services, such as oil changes, lubrications and engine tune ups, to achieve smoother running of vehicles and ensure compliance with pollution regulations
- reassembling engines and parts after being repaired

Occupation(s) in this Unit Group:

- 72310 Automotive mechanic

Occupation 72310 Automotive mechanic

Automotive mechanic fits, installs, maintains, services and repairs engines and the mechanical and related equipment of passenger cars, delivery trucks, motorcycles and other motor vehicles.

Example(s) of job classified under this code:

- Automobile mechanic

- Automotive engine tuner
- Garage mechanic (automobile)
- Motor vehicle fitter

Example(s) of job not classified under this code:

- Automotive engineering technician, see 31212
- Bicycle repairer, see 72340

Unit Group 7232 Aircraft Engine Mechanics and Repairers

Aircraft engine mechanics and repairers fit, service, repair and overhaul aircraft engines and assemblies, such as airframes, hydraulic, and pneumatic systems.

Tasks include:

- fitting, examining, testing and servicing aircraft engines
- replacing engine components or complete engines
- examining and inspecting airframes and aircraft components, including landing gear, hydraulic systems and deicers to detect wear, cracks, breaks, leaks, or other problems
- maintaining, repairing, overhauling, modifying and testing aircraft structural, mechanical and hydraulic systems
- reading and interpreting manuals, service bulletins, and other specifications to determine the feasibility and method of repairing or replacing malfunctioning or damaged components
- maintaining, repairing, and rebuilding aircraft structures, functional components, and parts such as wings and fuselage, rigging, hydraulic units, oxygen systems, fuel systems, electrical systems, gaskets and seals
- inspecting completed work to certify that maintenance meets standards and the aircraft is ready for operation
- maintaining repair logs, documenting all preventive and corrective aircraft maintenance
- installing and testing electrical and electronic components, assemblies and systems in aircraft
- connecting components to assemblies such as radio systems, instruments, magnetos, inverters and in-flight refuelling systems

Occupation(s) in this Unit Group:

- 72320 Aircraft engine mechanic/repairer

Occupation 72320 Aircraft engine mechanic/repairer

Aircraft engine mechanic/repairer fits, services, repairs and overhauls aircraft engines and assemblies, such as airframes, hydraulic, and pneumatic systems.

Example(s) of job classified under this code:

- Aeronautical mechanic
- Hydraulic systems mechanic (aircraft)
- Aircraft engine fitter

Example(s) of job not classified under this code:

- Aeronautical engineering technician, see 31211

Unit Group 7233 Rolling Stock Mechanics

Rolling stock mechanics fit, install, examine, service and repair rolling stock equipment and engines.

Tasks include:

- fitting, installing, examining, servicing and repairing rolling stock equipment and engines
- oiling and greasing stationary rolling stock equipment and engines
- inspecting and testing new rolling stock equipment and engines for conformity with standards and specifications
- disassembling rolling stock equipment and engines to remove parts and make repairs
- examining parts for defects such as breakage and excessive wear
- operating newly repaired rolling stock equipment and engines to verify the adequacy of repairs
- recording repairs and maintenance performed

Occupation(s) in this Unit Group:

- 72330 Rolling stock mechanic

Occupation 72330 Rolling stock mechanic

Rolling stock mechanic fits, installs, examines, services and repairs rolling stock equipment and engines.

Example(s) of job classified under this code:

- Diesel engine mechanic (excluding motor vehicle)
- Internal combustion engine fitter (excluding aircraft and marine engine)
- Turbine mechanic (excluding aircraft turbine)

Unit Group 7234 Bicycle and Related Repairers

Bicycle and related repairers fit, maintain, service and repair the mechanical and related equipment of bicycles, rickshaws, baby carriages, wheelchairs and similar non-motorised transport equipment.

Tasks include:

- examining, servicing and repairing bicycles and other non-motorised transport equipment
- cleaning and lubricating bearings and other moving parts
- replacing and repairing components and accessories such as brakes, gears, driving chain mechanisms, wheels and handlebars
- changing tyres and controlling air pressure
- spray painting frames
- assembling new bicycles, wheelchairs and similar non-motorised equipment

Occupation(s) in this Unit Group:

- 72340 Bicycle and related repairer

Occupation 72340 Bicycle and related repairer

Bicycle and related repairer fits, maintains, services and repairs the mechanical and related equipment of bicycles, rickshaws, baby carriages, wheelchairs and similar non-motorised transport equipment.

Example(s) of job classified under this code:

- Pedal-cycle repairer
- Rickshaw mechanic

Example(s) of job not classified under this code:

- Automobile mechanic, see 72310

Unit Group 7235 Marine Engine Mechanics and Repairers

Marine engine mechanics and repairers fit, install, examine, service and repair marine equipment and engines.

Tasks include:

- fitting, installing, examining, servicing and repairing marine equipment and engines
- oiling and greasing marine equipment and engines
- inspecting and testing new marine equipment and engines for conformity with standards and specifications

- disassembling marine equipment and engines to remove parts and make repairs
- examining parts for defects such as breakage and excessive wear
- operating newly repaired marine equipment and engines to verify the adequacy of repairs
- recording repairs and maintenance performed

Occupation(s) in this Unit Group:

- 72350 Marine engine mechanic/repairer

Occupation 72350 Marine engine mechanic/repairer

Marine engine mechanic/repairer fits, installs, examines, services and repairs marine equipment and engines.

Example(s) of job classified under this code:

- Marine engine fitter
- Marine mechanic

Unit Group 7239 Machinery Mechanics, Fitters and Repairers Not Elsewhere Classified

This unit group covers machinery mechanics, fitters and repairers not elsewhere classified.

Tasks include:

- fitting, installing, examining, servicing and repairing engines, machinery and mechanical equipment (excluding automotives, aircraft, rolling stock, bicycle, marine and electric motors)
- oiling and greasing stationary engines and machinery
- inspecting and testing new machinery and mechanical equipment for conformity with standards and specifications
- disassembling machinery and equipment to remove parts and make repairs
- examining parts for defects such as breakage and excessive wear
- operating newly repaired machinery and equipment to verify the adequacy of repairs
- recording repairs and maintenance performed

Occupation(s) in this Unit Group:

- 72390 Machinery mechanic/fitter/repairer n.e.c.

Occupation 72390 Machinery mechanic/fitter/repairer n.e.c.

This group covers machinery mechanic/fitter/repairer not elsewhere classified.

Example(s) of job classified under this code:

- Accounting and calculating machine mechanic
- Agricultural machinery fitter
- Coin machine repairer and servicer
- Earth moving equipment fitter
- Industrial machinery mechanic

Example(s) of job not classified under this code:

- Mechanical engineering technician, see 31151
- Machining/Tooling technician, see 31153

SUB-MAJOR GROUP 73 PRECISION, HANDICRAFT, PRINTING AND RELATED TRADES WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 730 SUPERVISORS AND GENERAL FOREMEN (PRECISION, HANDICRAFT, PRINTING AND RELATED TRADES)
- 731 HANDICRAFT AND PRECISION WORKERS
- 732 PRINTING TRADES WORKERS

MINOR GROUP 730 SUPERVISORS AND GENERAL FOREMEN (PRECISION, HANDICRAFT, PRINTING AND RELATED TRADES)

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7300 Supervisors and General Foremen (Precision, Handicraft, Printing and Related Trades)

Unit Group 7300 Supervisors and General Foremen (Precision, Handicraft, Printing and Related Trades)

Supervisors and general foremen (precision, handicraft, printing and related trades) supervise production activities within a distinct unit of an establishment in which precision instruments, musical instruments, jewellery, pottery and glass products are fabricated or within a unit specialising in typesetting and related work in a printing establishment, and control and coordinate the activities of workers in various occupations.

Tasks include:

- interpreting specifications and job orders
- determining sequence of operations and use of equipment

- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- coordinating the work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 73000 Supervisor/General foreman (precision/handicraft/printing and related trades)

Occupation 73000 Supervisor/General foreman (precision/handicraft/printing and related trades)

Supervisor/General foreman (precision/handicraft/printing and related trades) supervises production activities within a distinct unit of an establishment in which precision instruments, musical instruments, jewellery, pottery and glass products are fabricated, or within a unit specialising in typesetting and related work in a printing establishment, and control and coordinate the activities of workers in various occupations.

Example(s) of job classified under this code:

- Ceramics manufacturing supervisor
- Glass products manufacturing supervisor
- Jewellery manufacturing supervisor
- Pottery and bricks manufacturing supervisor

MINOR GROUP 731 HANDICRAFT AND PRECISION WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7311 Precision Instrument Makers and Repairers
- 7312 Musical Instrument Makers, Repairers and Tuners
- 7313 Jewellery and Precious Metal Workers
- 7314 Potters and Related Workers
- 7315 Glass Makers, Cutters, Grinders and Finishers
- 7316 Sign Writers, Decorative Painters, Engravers and Etchers

Unit Group 7311 Precision Instrument Makers and Repairers

Precision instrument makers and repairers make, calibrate, repair, maintain, adjust and install mechanical watches, clocks, nautical, meteorological, optical, orthopaedic and other precision instruments and equipment and set them for correct performance.

Tasks include:

- repairing, cleaning, and adjusting mechanisms of timing instruments, such as watches and clocks
- adjusting timing regulators, using callipers, watch-rate recorders and tweezers
- cleaning, rinsing, and drying timepiece parts, using solutions and ultrasonic or mechanical watch-cleaning machines
- testing timepiece accuracy and performance, using meters and other electronic instruments
- testing accuracy of meters, gauges, indicators, or other recording or controlling instruments to locate defective components and for conformance to standards
- calibrating instruments or scales, using hand tools, computer or electronic devices
- inspecting components, connections, and drive mechanisms to detect defects
- assembling instruments and devices, such as barometers, control valves, gyroscopes, hygrometers, speedometers, tachometers and thermostats
- testing, calibrating, and adjusting electronic, mercurial, aneroid and other types of meteorological instruments for compliance with printed specifications and schematic diagrams, using voltmeters, oscilloscopes, tube testers and other test instruments
- adjusting and repairing masts, supporting structures, clearance lights, control panels, control cabling and wiring and other electrical and mechanical devices
- repairing and setting optical instruments such as microscopes, telescopes, theodolites, sextants
- checking whether assembled units conform to specifications and ensuring stipulated performance and sensitivity by standard tests

Occupation(s) in this Unit Group:

- 73111 Watch/Clock assembler/repairer
- 73112 Optical instrument maker/repairer
- 73113 Medical device assembler/repairer
- 73119 Precision instrument maker/repairer n.e.c.

Occupation 73111 Watch/Clock assembler/repairer

Watch/Clock assembler/repairer fits, assembles and polishes parts of watches and clocks in addition to checking them for accuracy of fit. He/she repairs, cleans and adjusts watches and clocks, and examines timepieces through magnifying lenses to discover defects. He/she

removes and dismantle the clock or watch movements, cleans and lubricates parts, reassembles the movement and regulates it.

Example(s) of job classified under this code:

- Chronometer assembler

Occupation 73112 Optical instrument maker/repairer

Optical instrument maker/repairer reads blueprints and assembly drawings to assemble lenses and optical instruments, such as microscopes, telescopes, projection equipment, and medical diagnostic equipment. He/she processes, grinds, polishes, and coats glass materials, centre lenses according to the optical axis, and cements them to the optical frame.

Occupation 73113 Medical device assembler/repairer

Medical device assembler/repairer tests, adjusts, or repairs biomedical or electromedical equipment.

Example(s) of job classified under this code:

- Dental instrument maker and repairer
- Hearing aid mechanic
- Surgical instrument maker and repairer

Example(s) of job not classified under this code:

- Prosthetic/Orthotic technician, see 32142

Occupation 73119 Precision instrument maker/repairer n.e.c.

This group covers precision instrument maker/repairer not elsewhere classified.

Example(s) of job classified under this code:

- Camera repairer

Unit Group 7312 Musical Instrument Makers, Repairers and Tuners

Musical instrument makers, repairers and tuners make, assemble, repair, adjust, restore musical instruments and tune them to the required pitch with hand or power tools. They usually specialise in one type of instrument, such as string instruments, brass instruments, pianos, reed instruments or percussion instruments.

Tasks include:

- fabricating and assembling musical instruments and instrument parts of wood, ebonite, metal, leather and other materials
- repairing or replacing musical instrument parts and components, such as strings, bridges, felts, and keys, using hand and power tools
- playing and inspecting instruments to evaluate their sound quality and to locate any defects
- adjusting string tensions to achieve proper tone or pitch of stringed instruments
- adjusting lips, reeds, or toe hole of organ pipes, using hand tools, to regulate airflow and loudness of sound
- tuning and servicing pipe organs by adjusting pitch of organ pipes to conform with pitch of tuning fork and adjusting pitch of other pipes with references to pitch of tuned pipes
- installing new drumheads in percussion instruments
- tuning accordions by aurally comparing pitch of reeds with master reeds and filing reeds to obtain standard pitch
- aligning pads and keys on reed or wind instruments
- tuning percussion instruments to required pitch by tightening or loosening cords holding leather pieces fixed atop or at both ends of instrument
- assembling and installing new pipe organs and pianos in buildings

Occupation(s) in this Unit Group:

- 73120 Musical instrument maker/repairer/tuner

Occupation 73120 Musical instrument maker/repairer/tuner

Musical instrument maker/repairer/tuner makes, assembles, repairs, adjusts, restores musical instruments and tunes them to the required pitch with hand or power tools. He/she usually specialises in one type of instrument, such as string instruments, brass instruments, pianos, reed instruments or percussion instruments.

Example(s) of job classified under this code:

- Accordion maker
- Metal musical wind instrument maker
- Piano tuner
- Tone regulator (musical instrument)

Unit Group 7313 Jewellery and Precious Metal Workers

Jewellery and precious metal workers design, fabricate, adjust, repair, or appraise jewellery, ceremonial or religious items, gold, silver, other precious metals or gems. They cut, file, polish and set

precious and semi-precious stones including gems and diamonds and engrave designs on jewellery and precious metal articles. They cut and polish diamonds for industrial purposes.

Tasks include:

- casting jewellery and other non-ferrous metal articles by hand
- creating new jewellery designs and modifying existing designs, using computers as necessary
- cutting designs in moulds or other materials to be used as models in the fabrication of metal and jewellery products
- altering existing jewellery mountings in order to reposition jewels or to adjust mountings
- repairing, reshaping and restyling old jewellery or precious metal ware following designs or instructions
- making complete jewellery articles such as rings, necklaces, bangles, brooches and bracelets from materials such as gold, silver, platinum, and precious or semi-precious stones
- examining gem surfaces and internal structures, using polariscopes, refractometers, microscopes, and other optical instruments to differentiate between stones, identify rare specimens or to detect flaws, defects, or peculiarities affecting gem values
- cutting and polishing gems and setting them in jewellery articles
- engraving or embossing letters, designs or decorative lines on jewellery and precious metal ware
- grinding, drilling and finishing jewel bearings for use in precision instruments such as compasses and chronometers
- examining assembled or finished products to ensure conformance to specifications, using magnifying glasses or precision measuring instruments

Occupation(s) in this Unit Group:

- 73130 Jewellery/Precious metal worker

Occupation 73130 Jewellery/Precious metal worker

Jewellery/Precious metal worker designs, fabricates, adjusts, repairs, or appraises jewellery, ceremonial or religious items, gold, silver, other precious metals or gems. He/she cuts, files, polishes and sets precious and semi-precious stones including gems and diamonds and engraves designs on jewellery and precious metal articles. He/she cuts and polishes diamonds for industrial purposes.

Example(s) of job classified under this code:

- Gold beater
- Hammerman (precious metal article)
- Industrial diamond cutter and polisher
- Jewellery enameller

- Jewellery repairer

Unit Group 7314 Potters and Related Workers

Potters and related workers prepare pottery, porcelain ware, sanitary ware, bricks, tiles and abrasive wheels by hand or by machine.

Tasks include:

- making articles of pottery and porcelain
- making clay or plaster of Paris moulds
- reading technical drawings to know customer's requirements
- forming articles on potters' wheel by pressing thumbs into centres of revolving clay to form hollows, and press on the inside and outside of emerging clay cylinders with hands and fingers, gradually raising and shaping clay to desired forms and sizes
- adjusting wheel speeds according to the feel of the clay as pieces enlarge and walls become thinner
- operating jigger machines to form ceramic ware, such as bowls, cups, plates, and saucers
- adjusting and setting controls of pug mill that mixes, extrudes, cuts, and deposits clay charges in or over moulds as specified
- smoothening surfaces of finished pieces, using rubber scrapers and wet sponges
- forming abrasive wheels by moulding and pressing an abrasive mixture by hand or by machine
- examining finished ware for defects, verifying accuracy of shapes and sizes of objects, using callipers and templates
- preparing work for sale or exhibition, and maintaining relationships with retail, pottery, art, and resource networks that can facilitate sale or exhibition of work

Occupation(s) in this Unit Group:

- 73140 Potter and related worker

Occupation 73140 Potter and related worker

Potter and related worker prepares pottery, porcelain ware, sanitary ware, bricks, tiles and abrasive wheels by hand or by machine.

Example(s) of job classified under this code:

- Pottery and porcelain modeller
- Tile and brick moulder

Unit Group 7315 Glass Makers, Cutters, Grinders and Finishers

Glass makers, cutters, grinders and finishers blow, mould, press, cut, trim, grind and polish glass, shape molten glass according to patterns.

Tasks include:

- heating glass to pliable stage, using gas flames or ovens, and rotating glass to heat it uniformly
- blowing and bending glass tubing into specified shapes to form scientific apparatus like flasks, retorts, pipettes
- grinding and polishing glass objects or parts to correct defects or to prepare surfaces for further finishing and smoothening and polishing rough edges, using belt sander or polishing wheels
- examining glass stock and finished products and marking or discarding items with defects such as spots, stains, scars, snags, chips, scratches, or unacceptable shapes or finishes
- reading work orders to determine dimensions, cutting locations, and quantities to cut
- observing gauges, computer printouts and video monitors to verify specified processing conditions and make adjustments as necessary
- positioning pattern or drawing on glass, measuring dimensions, and marking cutting lines, using glass cutting tools and cutting glass along marked outlines or around pattern
- setting up, operating and adjusting computerised or robotic glass cutting equipment
- inspecting, weighing, and measuring products to verify conformance to specifications, using instruments such as micrometers, callipers, magnifiers, and rulers
- regulating oven temperatures according to glass types to be processed
- transferring pattern for individual stained glass parts from full size drawing to pattern paper, using stylus to trace drawings
- spraying silver solution on glass to provide mirrored surface, using spray gun
- laying out cutting and grinding optical and other glass to specified dimensions and weight for moulding into lens blanks and for use as watch crystals

Occupation(s) in this Unit Group:

- 73150 Glass maker/cutter/grinder/finisher

Occupation 73150 Glass maker/cutter/grinder/finisher

Glass maker/cutter/grinder/finisher blows, moulds, presses, cuts, trims, grinds and polishes glass, shapes molten glass according to patterns.

Example(s) of job classified under this code:

- Glass beveller
- Glass lens moulder

- Glass tube drawer
- Lens grinding machine operator
- Scientific glass blower

Example(s) of job not classified under this code:

- Precision optics technician, see 31293
- Building glazier, see 71250
- Glass decorator-painter, see 73160

Unit Group 7316 Sign Writers, Decorative Painters, Engravers and Etchers

Sign writers, decorative painters, engravers and etchers decorate articles made of wood, metal, textiles, glass, ceramics and other materials. They plan, lay out and paint letters, figures, monograms and designs to make signs and engrave and etch ornamental and floral designs on glass and other articles.

Tasks include:

- painting decorative free-hand designs on objects, such as pottery, glass, cigarette cases, lampshades
- transferring from paper transfers decorative or ornamental designs on articles
- integrating and developing visual elements, such as line, space, mass, colour, and perspective, in order to produce desired effects such as the illustration of ideas, emotions or moods
- laying out and painting in one or more languages letters, figures, monograms and designs to make signs
- sketching or tracing design or lettering onto work piece or pattern material to prepare pattern or stencil designing pattern or lettering to paint work pieces, such as signs, glassware, pottery or zinc plates
- using software and routing equipment to produce 3D carved images for application onto larger signage as well as engraved and inlaid signs
- designing and producing normal flat cut lettering or lettering that is shadowed with applied vinyl or lettering that is ready cut for application
- writing, painting, or printing signs or show cards used for display or other purposes
- cutting out letters and signs for display purposes from wallboard or cardboard, by hand or machines, such as electrically powered jigsaw or bandsaw
- examining sketches, diagrams, samples, blueprints, or photographs to decide how designs are to be etched, cut or engraved onto work pieces
- measuring and computing dimensions of lettering, designs or patterns to be engraved

- engraving and printing patterns, ornamental designs, etchings, trademarks, figures or lettering onto flat or curved surfaces of a wide variety of metal, glass, plastic or ceramic items
- etching decorative designs, calibration markings and other figures on glass articles

Occupation(s) in this Unit Group:

- 73160 Sign writer/Decorative painter/Engraver/Etcher

Occupation 73160 Sign writer/Decorative painter/Engraver/Etcher

Sign writer/Decorative painter/Engraver/Etcher decorates articles made of wood, metal, textiles, glass, ceramics and other materials. He/she plans, lays out and paints letters, figures, monograms and designs to make signs and to engrave and etch ornamental and floral designs on glass and other articles. He/she may also mark outlines of letters and designs directly on surface to be painted, or transfer outline from paper to surface to be painted.

Example(s) of job classified under this code:

- Advertisement painter (sign writing)
- Ceramic enameller
- Glass decorator-painter
- Mirror silverer
- Spray painter (ceramics)

Example(s) of job not classified under this code:

- Creative artist (glass and ceramics), see 26519
- Construction painter, see 71311
- Spray painter (excluding ships and motor vehicles), see 71323
- Glass beveller, see 73150

MINOR GROUP 732 PRINTING TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7321 Pre-Press Trades Workers
- 7322 Printers

Unit Group 7321 Pre-Press Trades Workers

Pre-press trades workers proof, format, set and compose text and graphics into a form suitable for use in various printing processes and representation in other visual media.

Tasks include:

- operating graphic cameras and other photographic equipment to reproduce camera-ready copy onto films, plates and digital output devices
- using computer applications to generate images, text, layouts and impositions for print and other visual media displays
- operating plate making equipment to reproduce images from film to printing plates, digital output devices and presses
- operating computer screen-based equipment for scanning, colour separation, colour correction, masking, creative design, combining, imposing, retouching, and other processes used to transfer copy to film and produce film for plate, digital output and cylinder productions
- carrying out digital and chemical proofing from digital systems, and negative and positive films
- evaluating printed proofs, checking and correcting them for quality
- preparing and exposing carbon tissue for laying on cylinders by transfer method, and developing images

Occupation(s) in this Unit Group:

- 73210 Pre-press trades worker

Occupation 73210 Pre-press trades worker

Pre-press trades worker proofs, formats, sets and composes text and graphics into a form suitable for use in various printing processes and representation in other visual media.

Example(s) of job classified under this code:

- Braille machine operator (plate preparer)
- Composing machine operator (linotype)
- Electrotype caster
- Intertype operator
- Photogravure engraver

Unit Group 7322 Printers

Printers set up and operate digital, letterpress, lithographic, flexographic, gravure, newspaper and other printing presses.

Tasks include:

- setting, adjusting and monitoring substrate-feed mechanisms, delivery mechanisms, inking systems and other printing machine functions
- mixing ink and solvents to standard, and regulating paper and ink supply during print runs

- monitoring, evaluating and determining press to check print quality standards against proofs and detect malfunctions
- producing a variety of printed products using digital, relief, lithographic, flexographic and gravure printing presses, and in-line finishing systems
- preparing plates, blankets and impression cylinders on small offset lithographic printing presses
- loading paper into feeding mechanisms
- monitoring machine operations and quality of printing
- maintaining, adjusting, repairing and cleaning machines
- producing digital print images, and transferring and outputting images

Occupation(s) in this Unit Group:

- 73220 Printer

Occupation 73220 Printer

Printer sets up and operates digital, letterpress, lithographic, flexographic, gravure, newspaper and other printing presses.

Example(s) of job classified under this code:

- Block printer
- Textile printer

Example(s) of job not classified under this code:

- Printing machine operator, see 81841
- Printing pressman, see 81841

SUB-MAJOR GROUP 74 ELECTRICAL AND ELECTRONIC TRADES WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 740 SUPERVISORS AND GENERAL FOREMEN (ELECTRICAL AND ELECTRONIC TRADES)
- 741 ELECTRICAL EQUIPMENT RELATED TRADES WORKERS
- 742 ELECTRONICS AND TELECOMMUNICATIONS RELATED TRADES WORKERS

MINOR GROUP 740 SUPERVISORS AND GENERAL FOREMEN (ELECTRICAL AND ELECTRONIC TRADES)

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7400 Supervisors and General Foremen (Electrical and Electronic Trades)

Unit Group 7400 Supervisors and General Foremen (Electrical and Electronic Trades)

Supervisors and general foremen (electrical and electronic trades) supervise production activities within a distinct unit of an establishment concerned with electrical or electronic machinery and equipment, and control and coordinate the activities of workers in various occupations.

Tasks include:

- interpreting specifications and job orders
- determining sequence of operations and use of equipment
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- coordinating the work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 74001 Lift supervisor
- 74002 Supervisor/General foreman (electrical/electronic trades, excluding lift)

Occupation 74001 Lift supervisor

Lift supervisor supervises lift, escalator and related equipment maintenance, response and recovery, replacement and upgrading activities. He/she conducts risk assessment, develops and conducts safety and technical training and writes reports and resolves disputes.

Example(s) of job classified under this code:

- Senior lift supervisor

Example(s) of job not classified under this code:

- Lift maintenance master specialist, see 31132

Occupation 74002 Supervisor/General foreman (electrical/electronic trades, excluding lift)

Supervisor/General foreman (electrical/electronic trades, excluding lift) supervises production activities within a distinct unit of an establishment concerned with electrical or electronic machinery and equipment, and controls and coordinates the activities of workers in various occupations.

Example(s) of job classified under this code:

- Electrical and electronic installation and repair (excluding lift) general foreman
- Electrical and electronic installation and repair (excluding lift) supervisor

MINOR GROUP 741 ELECTRICAL EQUIPMENT RELATED TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7411 Electricians
- 7412 Electrical Mechanics and Fitters
- 7413 Electrical Line Installers and Repairers

Unit Group 7411 Electricians

Electricians install, maintain and repair electrical wiring systems and related equipment and fixtures.

Tasks include:

- installing, maintaining and repairing electrical wiring systems and related equipment in various buildings such as schools, hospitals, commercial establishments, residential buildings, other structures and machineries
- examining blueprints, wiring diagrams and specifications to determine sequences and methods of operation
- planning layout and installation of electrical wiring, equipment and fixtures, based on job specifications and relevant standards
- inspecting electrical systems, equipment, and components to identify hazards, defects, and the need for adjustment or repair
- selecting, cutting and connecting wire and cable to terminals and connectors
- measuring and laying out installation reference points
- positioning and installing electrical switchboards
- testing continuity of circuit

Notes:

Electricians typically possess an electrical installation licence from the Energy Market Authority (EMA) or its equivalent.

Occupation(s) in this Unit Group:

- 74110 Electrician

Occupation 74110 Electrician

Electrician installs, maintains and repairs electrical wiring systems and related equipment and fixtures.

Example(s) of job classified under this code:

- Aircraft electrician
- Installation electrician (building)

Example(s) of job not classified under this code:

- Electrical engineering technician, see 31131

Unit Group 7412 Electrical Mechanics and Fitters

Electrical mechanics and fitters fit, adjust, install and repair electrical machinery and other electrical apparatus and equipment in buildings, factories, workshops or other places.

Tasks include:

- fitting, adjusting and repairing various kinds of electrical machinery and motors, generators, switchgear and control apparatus, instruments, or electrical parts of elevators and related equipment
- fitting, adjusting and repairing electrical parts in domestic appliances, industrial machines and other appliances
- inspecting and testing manufactured electrical products
- installing, testing, connecting, commissioning, maintaining and modifying electrical equipment, wiring and control systems
- designing, installing, maintaining, servicing and repairing electric and hydraulic passenger and freight lifts, escalators, moving walkways and other lift equipment
- connecting electrical systems to power supply
- replacing and repairing defective parts

Occupation(s) in this Unit Group:

- 74121 Electrical fitter
- 74122 Electrical lift/escalator and related equipment fitter
- 74123 Electrical household appliance repairer

Occupation 74121 Electrical fitter

Electrical fitter fits, adjusts, assembles and repairs various kinds of electrical machinery and electrical apparatus in factory, workshop or place of use. He/she examines wiring and

assembly diagrams and other specifications, and checks parts for accuracy of fit and if necessary chisels, files, scrapes and does other supplementary tooling.

Example(s) of job classified under this code:

- Dynamo fitter
- Electric motor fitter
- Electrical household appliance fitter
- Generator fitter
- Rheostat fitter

Example(s) of job not classified under this code:

- Electrical engineering technician, see 31131
- Electrical lift equipment fitter, see 74122
- Electrical household appliance repairer, see 74123

Notes:

Electrical fitter typically possesses an electrical installation licence from the Energy Market Authority (EMA) or its equivalent.

Occupation 74122 Electrical lift/escalator and related equipment fitter

Electrical lift/escalator and related equipment fitter assembles, installs, repairs, or maintains electric or hydraulic freight or passenger elevators, escalators, or dumbwaiters. He/she fits, adjusts and repairs electrical parts of lifts, escalators and equipment in factory, workshop or place of use.

Example(s) of job classified under this code:

- Elevator fitter (electrical)
- Lift maintenance senior specialist

Example(s) of job not classified under this code:

- Lift maintenance principal specialist, see 31132
- Electric motor fitter, see 74121

Occupation 74123 Electrical household appliance repairer

Electrical household appliance repairer repairs simple electrical apparatus, mainly of a domestic kind, in workshop or place of use. He/she diagnoses faults with aid of electrical testing equipment and dismantles or partly dismantles equipment if necessary.

Example(s) of job classified under this code:

- Electrical household appliance mechanic

Example(s) of job not classified under this code:

- Electrical household appliance fitter, see 74121

Unit Group 7413 Electrical Line Installers and Repairers

Electrical line installers and repairers install, repair and join electrical transmission and supply cables and related equipment.

Tasks include:

- installing and repairing overhead and underground electrical power and electrical traction lines
- making joints in overhead and underground cables
- adhering to safety practices and procedures, such as checking equipment regularly and erecting barriers around work areas
- opening switches or attaching grounding devices to remove electrical hazards from disturbed or fallen lines or to facilitate repairs
- climbing poles or using truck-mounted buckets to access equipment
- identifying defective sectionalising devices, circuit breakers, fuses, voltage regulators, transformers, switches, relays, or wiring, using wiring diagrams and electrical-testing instruments

Notes:

Electrical line installers and repairers typically posses an electrical installation licence from the Energy Market Authority (EMA) or its equivalent.

Occupation(s) in this Unit Group:

- 74131 Electrical line installer (overhead)
- 74132 Electric cable jointer
- 74133 Underground electrical line installer/repairer

Occupation 74131 Electrical line installer (overhead)

Electrical line installer (overhead) constructs and repairs overhead high-tension or low-tension power lines conducting electricity between generating stations, substations and consumers. He/she climbs poles and pylons and fixes insulators, lightning arresters and other equipment. He/she also strings cables between pylons, poles and buildings, ensuring that proper sag is left in cables to avoid breakage under changing atmospheric conditions.

Example(s) of job classified under this code:

- Electric power cableman (overhead)

- Electric traction lineman
- Overhead wireman (electric power)

Example(s) of job not classified under this code:

- Electrical engineering technician, see 31131

Occupation 74132 Electric cable jointer

Electric cable jointer makes joints in surface and underground cables. He/she joins and solders corresponding conductor wires, dries out moisture and wraps joints with insulating material.

Occupation 74133 Underground electrical line installer/repairer

Underground electrical line installer/repairer constructs, maintains and repairs underground electrical power transmission and distribution systems.

Example(s) of job classified under this code:

- Electric power cableman (underground)
- Electric power lineman (underground)
- Underground cable layer

MINOR GROUP 742 ELECTRONICS AND TELECOMMUNICATIONS RELATED TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7421 Electronics Mechanics and Servicers
- 7422 Information and Communications Technology Installers and Servicers

Unit Group 7421 Electronics Mechanics and Servicers

Electronics mechanics and servicers fit, maintain, adjust and repair electronic equipment such as commercial and office machines and electronic instruments and control systems.

Tasks include:

- examining and testing machines, instruments, components, other equipment, instrumentation and control (I&C) systems to identify faults
- adjusting, repairing and replacing worn and defective parts and wiring, and maintaining machines, equipment and instruments
- reassembling, test operating and adjusting equipment

- installing electronic instrumentation and control systems
- coordinating work with that of engineers, technicians and other maintenance personnel
- interpreting test data to diagnose malfunctions and systemic performance problems
- installing, adjusting, repairing or replacing electrical and electronic components, assemblies, and systems using hand tools, power tools or soldering irons
- connecting components to assemblies such as radio systems, instruments, magnetos, inverters and in-flight refuelling systems
- keeping records of maintenance and repair work

Occupation(s) in this Unit Group:

- 74210 Electronics fitter (excluding broadcasting and communication equipment)

Occupation 74210 Electronics fitter (excluding broadcasting and communication equipment)

Electronics fitter (excluding broadcasting and communication equipment) fits, adjusts and repairs various kinds of electronic equipment in factory, workshop or place of use. He/she examines drawings and wiring diagrams, and checks parts for accuracy of fit and, where necessary, files, chisels, scrapes and does other supplementary tooling.

Example(s) of job classified under this code:

- Electronic industrial equipment fitter
- Electronic meteorological equipment fitter
- Electronic prototype fitter

Example(s) of job not classified under this code:

- Electronics engineering technician, see 31141

Unit Group 7422 Information and Communications Technology Installers and Servicers

Information and communications technology installers and servicers install, repair and maintain telecommunications equipment, data transmission equipment, cables, antennae and conduits and repair, fit and maintain computers.

Tasks include:

- maintaining, troubleshooting, testing and repairing computers, data transmission equipment and computer peripherals
- fitting and adjusting computer hardware
- installing, maintaining, repairing, and diagnosing malfunctions of microwave, telemetry, multiplexing, satellite and other radio and electromagnetic wave communications systems

- providing technical advice and information, and monitoring the performance of complex telecommunications networks and equipment
- installing and repairing cabling for computer, radio, telephone and television transmission
- joining telecommunications and data cables and sealing sheathes
- installing, maintaining and repairing antennae used in communications

Occupation(s) in this Unit Group:

- 74221 Consumer audio/video equipment/radar broadcasting/transmitting equipment fitter/mechanic
- 74222 Computer and related electronic equipment mechanic
- 74223 Telecommunications lineman
- 74224 Telecommunications installer/servicer

Occupation 74221 Consumer audio/video equipment/radar broadcasting/transmitting equipment fitter/mechanic

Consumer audio/video equipment/radar broadcasting/transmitting equipment fitter/mechanic fits, adjusts, installs and repairs radio, television, transmitters, receivers and radar equipment in factory, workshop or place of use. He/she specialises in television transmitters/receivers, radar equipment, radio transmitters/receivers and two way radio communications equipment. He/she examines drawings and wiring diagrams, and diagnoses faults with aid of testing equipment.

Example(s) of job classified under this code:

- Aerial erector (radio and television)
- Radar mechanic
- Signalling equipment fitter (electronic)
- Television transmitter mechanic
- Television and radio receiving set mechanic

Example(s) of job not classified under this code:

- Audio/Video equipment technician, see 31143

Occupation 74222 Computer and related electronic equipment mechanic

Computer and related electronic equipment mechanic fits, adjusts and repairs computers and related electronic equipment in factory, workshop or place of use. He/she specialises in computers and related electronic equipment.

Example(s) of job classified under this code:

- Data processing equipment fitter
- Electronic computer and related equipment fitter

Occupation 74223 Telecommunications lineman

Telecommunications lineman installs and repairs overhead, underground and submarine wires and cables for telephone and telecommunications transmission, attaching terminal boxes, repeaters and other specialised equipment to poles. He/she installs auxiliary equipment such as terminal boxes and repeaters and makes connections to complete underground telephone and telecommunications cable systems.

Example(s) of job classified under this code:

- Overhead wireman (telephone and telegraph)
- Telephone and telegraph cable jointer
- Telephone and telegraph cableman

Example(s) of job not classified under this code:

- Telecommunications technician, see 35220

Occupation 74224 Telecommunications installer/servicer

Telecommunications installer/servicer installs and repairs telephone and telecommunications equipment. He/she examines drawing and wiring diagrams, and installs or services telephone switchboards, relay racks, dial-switching equipment, receiving sets, telegraphic typewriters and other equipment in position.

Example(s) of job classified under this code:

- Telecommunications and telephone mechanic
- Telegraphic mechanic

Example(s) of job not classified under this code:

- Telecommunications technician, see 35220

SUB-MAJOR GROUP 75 FOOD PROCESSING, WOODWORKING, GARMENT, LEATHER AND OTHER CRAFT AND RELATED TRADES WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 750 SUPERVISORS AND GENERAL FOREMEN (FOOD PROCESSING, WOODWORKING, GARMENT, LEATHER AND RELATED TRADES)
- 751 FOOD PROCESSING AND RELATED TRADES WORKERS

- 752 WOOD TREATERS, CABINET MAKERS AND RELATED TRADES WORKERS
- 753 GARMENT, LEATHER AND RELATED TRADES WORKERS
- 754 OTHER CRAFT AND RELATED WORKERS

MINOR GROUP 750 SUPERVISORS AND GENERAL FOREMEN (FOOD PROCESSING, WOODWORKING, GARMENT, LEATHER AND RELATED TRADES)

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7500 Supervisors and General Foremen (Food Processing, Woodworking, Garment, Leather and Related Trades)

Unit Group 7500 Supervisors and General Foremen (Food Processing, Woodworking, Garment, Leather and Related Trades)

Supervisors and general foremen (food processing, woodworking, garment, leather and related trades) supervise production activities within a distinct unit of an establishment in which specific knowledge and skills are used for processing foodstuffs and beverages, preparation of fibres, treatment of wood, manufacture of wooden furniture, fur articles, made-to-order garments, footwear and leather goods, and control and coordinate the activities of workers in various occupations.

Tasks include:

- interpreting specifications and job orders
- determining sequence of operations and use of equipment
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- coordinating the work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 75000 Supervisor/General foreman (food processing/woodworking/garment/leather and related trades)

Occupation 75000 Supervisor/General foreman (food processing/woodworking/garment/leather and related trades)

Supervisor/General foreman (food processing/woodworking/garment/leather and related trades) supervises production activities within a distinct unit of an establishment in which

specific knowledge and skills are used for processing foodstuffs and beverages, preparation of fibres, treatment of wood, manufacture of wooden furniture, fur articles, made-to-order garments, footwear and leather goods, and controls and coordinates the activities of workers in various occupations.

Example(s) of job classified under this code:

- Furniture and related products manufacturing supervisor
- Leather goods making general foreman
- Shoemaking supervisor
- Tobacco products manufacturing supervisor

MINOR GROUP 751 FOOD PROCESSING AND RELATED TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7511 Butchers, Fishmongers and Related Food Preparers
- 7512 Bakers, Pastry and Confectionery Makers
- 7515 Food and Beverage Tasters and Graders
- 7519 Food Processing and Related Trades Workers Not Elsewhere Classified

Unit Group 7511 Butchers, Fishmongers and Related Food Preparers

Butchers, fishmongers and related food preparers slaughter animals, clean, cut and dress meat and fish, remove bones and prepare related food items or preserve meat, fish and other foods and food products by drying, salting or smoking.

Tasks include:

- slaughtering animals
- flaying and trimming carcasses
- boning, cutting and dressing meat and fish for sale or further processing
- preparing ingredients and making sausages and similar products using chopping, mixing and shaping machines
- curing meat, fish and other foods
- operating smokehouses or ovens to smoke meat, fish and other foodstuffs
- cooking or in other ways preparing meat, fish and related food items for sale

Occupation(s) in this Unit Group:

- 75110 Butcher/Fishmonger and related food preparer

Occupation 75110 Butcher/Fishmonger and related food preparer

Butcher/Fishmonger and related food preparer slaughters animals, cleans, cuts and dresses meat and fish, removes bones and prepares related food items or preserves meat, fish and other foods and food products by drying, salting or smoking.

Example(s) of job classified under this code:

- Meat boner
- Meat dresser
- Poultry slaughterer

Example(s) of job not classified under this code:

- Meat/Fish products machine operator, see 81601

Unit Group 7512 Bakers, Pastry and Confectionery Makers

Bakers, pastry and confectionery makers make various kinds of bread, cakes, and other flour products, as well as handmade chocolate and sugar confectionery.

Tasks include:

- making bread, cakes, biscuits, pastries, pies and other flour products
- making handmade confectionery from mixtures of sugar, chocolate and other ingredients using hand tools and some machines
- combining measured ingredients in bowls of mixing, blending, or cooking machinery
- checking the quality of raw materials to ensure that standards and specifications are met
- applying glazes, icings, or other toppings to baked goods, using spatulas or brushes
- checking the cleanliness of equipment and operation of premises before production runs to ensure compliance with occupational health and safety regulations
- monitoring oven temperatures and product appearance to determine baking times
- coordinating the forming, loading, baking, unloading, de-panning and cooling of batches of bread, rolls, pastry and confectionery products

Occupation(s) in this Unit Group:

- 75121 Baker
- 75122 Pastry/Confectionery maker

Occupation 75121 Baker

Baker produces finished baked goods, such as bread, cake, and biscuits. He/she also weighs out ingredients and ensures all baking equipment and baking area are clean prior to and post production of any baked items.

Example(s) of job classified under this code:

- Assistant baker
- Dough maker (bread)

Occupation 75122 Pastry/Confectionery maker

Pastry/Confectionery maker makes tarts, cakes and other pastry products. He/she also weighs out ingredients and ensures all confectionery equipment and cooking area are clean prior to and post production of any pastry and confectionery items.

Example(s) of job classified under this code:

- Ovenman (flour confectionery)
- Paste mixer (pies)
- Pie maker

Unit Group 7515 Food and Beverage Tasters and Graders

Food and beverage tasters and graders inspect, taste and grade various types of agricultural products, food and beverages.

Tasks include:

- inspecting, testing, tasting and smelling agricultural products, food and beverages at various stages of processing
- determining quality, acceptability to consumer tastes and approximate value of products and grading them into appropriate classes
- discarding inferior products
- recording the grade and/or identification numbers on tags, receiving, or sales sheets
- weighing and measuring products

Occupation(s) in this Unit Group:

- 75150 Food and beverage taster/grader

Occupation 75150 Food and beverage taster/grader

Food and beverage taster/grader inspects, tastes and grades various types of agricultural products, food and beverages.

Example(s) of job classified under this code:

- Coffee and tea taster

Unit Group 7519 Food Processing and Related Trades Workers Not Elsewhere Classified

This unit group covers food processing and related trades workers not elsewhere classified.

Tasks include:

- preparing, inspecting, testing and tasting food products at various stages of processing to determine quality and grade into appropriate class
- performing related tasks

Occupation(s) in this Unit Group:

- 75190 Food processing and related trades worker n.e.c.

Occupation 75190 Food processing and related trades worker n.e.c.

This group covers food processing and related trades worker not elsewhere classified.

Example(s) of job classified under this code:

- Blachan maker
- Chinese medicated wine maker
- Fruit pickler
- Jam maker
- Vegetable pickler

MINOR GROUP 752 WOOD TREATERS, CABINET MAKERS AND RELATED TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7521 Wood Treaters
- 7522 Cabinet Makers and Wood Related Trades Workers
- 7529 Furniture Makers and Related Trades Workers Not Elsewhere Classified

Unit Group 7521 Wood Treaters

Wood treaters operate and tend wood treatment processing equipment and machines to remove bark from logs, produce wood chips, season, preserve and treat wood, and produce waferboards, particleboards, hardboards, insulation boards, plywood, veneers and similar wood products.

Tasks include:

- operating and tending kilns, treating tanks and other equipment to dry lumber, prepare and season wood and other wood products, and to treat chemically and impregnate wood products with preservatives
- monitoring equipment operation, gauges, and panel lights in order to detect deviations from standards and to ensure that processes are operating according to specifications
- assisting in maintaining processing equipment and machines as required
- cleaning, lubricating and adjusting equipment
- transporting materials and products to and from work areas, manually or using carts, handtrucks or hoists
- completing and maintaining production reports

Occupation(s) in this Unit Group:

- 75210 Wood treater

Occupation 75210 Wood treater

Wood treater operates and tends wood treatment processing equipment and machines to remove bark from logs, produces wood chips, seasons, preserves and treats wood, and produces waferboards, particleboards, hardboards, insulation boards, plywood, veneers and similar wood products.

Example(s) of job classified under this code:

- Dry kiln operator
- Veneer dryer tender
- Wood impregnator

Unit Group 7522 Cabinet Makers and Wood Related Trades Workers

Cabinet makers and wood related trades workers make, decorate and repair wooden furniture, carts and other vehicles, wheels, parts, fittings, patterns, models and other wooden products using woodworking machines, machine tools and specialised hand tools.

Tasks include:

- operating woodworking machines, such as power saws, jointers, mortisers and shapers, and using hand tools to cut, shape and form parts and components

- studying plans, verifying dimensions of articles to be made, or preparing specifications and checking the quality and fit of pieces in order to ensure adherence to specifications
- trimming joints and fitting parts and subassemblies together to form complete units using glue and clamps, and reinforcing joints using nails, screws or other fasteners
- making, restyling and repairing various wooden articles, such as cabinets, furniture, vehicles, scale models, sports equipment and other parts or products
- decorating furniture and fixtures by inlaying wood, applying veneer and carving designs
- finishing surfaces of wooden articles or furniture

Occupation(s) in this Unit Group:

- 75220 Cabinet maker/Wood related trades worker

Occupation 75220 Cabinet maker/Wood related trades worker

Cabinet maker/Wood related trades worker makes, decorates and repairs wooden furniture, carts and other vehicles, wheels, parts, fittings, patterns, models and other wooden products using woodworking machines, machine tools and specialised hand tools.

Example(s) of job classified under this code:

- Exhibition stand erector
- Furniture maker (wood)
- Picture frame maker
- Veneer applier

Example(s) of job not classified under this code:

- Barge builder (wood), see 71151

Unit Group 7529 Furniture Makers and Related Trades Workers Not Elsewhere Classified

This unit group covers furniture makers and related trades workers not elsewhere classified.

Tasks include:

- making wicker furniture from peeled and softened rattan, reeds, rushes, willow branches and similar materials
- making various kinds of baskets by interlacing osier, rattan, reeds, rushes or similar materials
- selecting and preparing brush materials, such as bristles, nylon, fibres and wire and setting them in brush base
- selecting and preparing materials, such as broom corn, bass and whisker fibre, and fastening them to broom handles

- performing related tasks

Occupation(s) in this Unit Group:

- 75290 Furniture maker and related trades worker n.e.c.

Occupation 75290 Furniture maker and related trades worker n.e.c.

This group covers furniture maker and related trades worker not elsewhere classified.

Example(s) of job classified under this code:

- Bamboo screen maker
- Basket maker
- Rattan furniture maker

MINOR GROUP 753 GARMENT, LEATHER AND RELATED TRADES WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7531 Tailors and Dressmakers
- 7532 Garment and Related Pattern-Makers and Cutters
- 7534 Upholsterers and Related Workers
- 7536 Shoemakers and Related Workers
- 7539 Garment, Leather and Related Trades Workers Not Elsewhere Classified

Unit Group 7531 Tailors and Dressmakers

Tailors and Dressmakers fabricate, fit, alter and repair tailored or hand-made clothing. They produce made-to-measure clothing such as suits, overcoats, and dresses from textile fabrics, and other material, according to customers' and clothing manufacturers' specifications.

Tasks include:

- making overcoats, suits, skirts, shirts, blouses, lingerie, corsetry and similar garments often to clients' individual requirements
- selecting textile fabrics, leather or fur pelts matching the desired size, colour, texture, and quality of the garment; cutting to shape them to garment pattern and arranging them on pattern according to the design of the garment
- making garment style changes, such as tapering trouser legs, narrowing lapels, and adding or removing padding
- selecting and modifying commercial patterns to customers' and clothing manufacturers' specifications and fit

- fitting, altering and repairing tailored clothing, dresses, coats and other made-to-measure garments according to customers' requests
- making and caring for costumes used in theatrical, television and motion picture productions

Occupation(s) in this Unit Group:

- 75310 Tailor/Dressmaker

Occupation 75310 Tailor/Dressmaker

Tailor/Dressmaker fabricates, fits, alters and repairs tailored or hand-made clothing. He/she produces made-to-measure clothing such as suits, overcoats, and dresses from textile fabrics, and other material, according to customers' and clothing manufacturers' specifications.

Example(s) of job classified under this code:

- Gown maker

Unit Group 7532 Garment and Related Pattern-Makers and Cutters

Garment and related pattern-makers and cutters create precision master patterns for production of garments, other textiles, and leather or fur products. They mark, cut, shape and trim textile, light leather and other materials according to blueprints or specifications in the manufacture of garments, hats and caps, gloves and miscellaneous products.

Tasks include:

- creating a master pattern for each size within a range of garment sizes, using charts, drafting instruments, computers, and/or grading devices
- creating the blueprint or pattern pieces for a particular apparel design with the aid of a computer
- calculating dimensions of patterns according to sizes, considering stretching of material
- drawing details on outlined parts to indicate where the parts are to be joined, as well as the positions of pleats, pockets, buttonholes on garments, decorative stitching on shoe parts or eyelets on canvas products, using computers or drafting instruments
- positioning templates or measuring materials to locate specified points of cuts or to obtain maximum yields and mark fabric accordingly
- laying out master pattern on fabric and cutting sample pattern
- testing patterns by making and fitting sample garments
- placing patterns on top of layers of fabric and cutting fabric following patterns, using electric or manual knives, cutters or computer numerically controlled cutting devices
- cutting fabric or fur pelts to make parts for garments and other fur articles
- trimming excess material or cutting threads off finished products, such as cutting loose ends of a finished product

- positioning leather on cutting bed of machine, maximising usage according to skin grain, skin flaws and skin stretch
- performing pattern-making, marking and cutting tasks in the manufacture of other products such as soft furnishings and canvas goods

Occupation(s) in this Unit Group:

- 75320 Garment and related pattern-maker/cutter

Occupation 75320 Garment and related pattern-maker/cutter

Garment and related pattern-maker/cutter creates precision master patterns for production of garments, other textiles, and leather or fur products. He/she marks, cuts, shapes and trims textile, light leather and other materials according to blueprints or specifications in the manufacture of garments, hats and caps, gloves and miscellaneous products.

Example(s) of job classified under this code:

- Garment pattern-maker
- Tailor's cutter

Unit Group 7534 Upholsterers and Related Workers

Upholsterers and related workers install, repair and replace upholstery of furniture, fixtures, orthopaedic appliances; seats, panels, convertible and vinyl tops and other furnishings of automobiles, railway coaches, aircraft, ships and similar items with fabric, leather, rexine or other upholstery material. They also make and repair cushions, quilts and mattresses.

Tasks include:

- discussing upholstery fabric, colour, and style with customers and providing cost estimate for upholstering furniture or other items
- making upholstery patterns from sketches, customer descriptions or blueprints
- laying out, measuring and cutting upholstery materials following patterns, templates, sketches, or design specifications
- installing, arranging and securing springs, padding and covering material to furniture frames
- sewing upholstery materials by hand to seam cushions and joining sections of covering materials
- sewing rips or tears in material, or creating tufting, using needle and thread
- tacking, gluing or sewing ornamental trims, buckles, braids, buttons and other accessories to covers or frames on upholstered items
- laying out, cutting, fabricating and installing upholstery in aircrafts, motor vehicles, railway cars, boats and ships
- repairing raw hide covering of artificial limbs

- renovating antique furniture using a variety of tools including ripping chisels, magnetic hammers and long needles
- collaborating with interior designers to decorate rooms and coordinate furnishing fabrics
- making quilts, cushions and mattresses

Occupation(s) in this Unit Group:

- 75340 Upholsterer and related worker

Occupation 75340 Upholsterer and related worker

Upholsterer and related worker installs, repairs and replaces upholstery of furniture, fixtures, orthopaedic appliances; seats, panels, convertible and vinyl tops and other furnishings of automobiles, railway coaches, aircraft, ships and similar items with fabric, leather, rexine or other upholstery material. He/she also makes and repairs cushions, quilts and mattresses.

Example(s) of job classified under this code:

- Bedding maker
- Mattress sewer
- Rail-carriage upholsterer
- Soft furnishings maker

Unit Group 7536 Shoemakers and Related Workers

Shoemakers and related workers make, modify and repair standard, custom or orthopaedic footwear and natural or synthetic leather articles, such as luggage, handbags and belts, (except for leather garments, hats and gloves), or participate in the manufacture of shoes and related goods. They decorate, reinforce or finish shoes, luggage, handbags and belts.

Tasks include:

- making, modifying and repairing standard footwear to meet individual requirements
- making, modifying and repairing orthopaedic or therapeutic footwear according to doctors' prescriptions, or modifying existing footwear for people with foot problems and special needs
- repairing belts, luggage, purses and similar products
- taking plaster casts of deformed legs or foot to prepare drawings
- preparing inserts, heel pads, and lifts from casts of customers' feet
- studying drawings and other specifications to make footwear according to customer's needs
- studying work orders and/or shoe part tags to obtain information about workloads, specifications, and the types of materials to be used

- checking the texture, colour, and strength of leather to ensure that it is adequate for a particular purpose
- cutting out, shaping and padding parts for making leather articles
- sewing rips or patching holes to repair articles, such as purses, belts, shoes, and luggage
- removing and examining shoes, shoe parts, and designs to verify conformance to specifications such as proper embedding of stitches in channels
- attaching accessories or ornamentation to decorate or protect products
- making and repairing articles such as saddles and harnesses for animals, luggage, handbags, brief-cases, leather bags, belts and other accessories

Occupation(s) in this Unit Group:

- 75361 Shoemaker/Cobbler
- 75362 Leather goods maker/assembler
- 75369 Shoemaker and related worker n.e.c.

Occupation 75361 Shoemaker/Cobbler

Shoemaker/Cobbler makes complete or repairs standard footwear, mainly of leather, for individual customers. He/she takes measurements of feet and selects and adapts last, makes patterns and selects materials, cuts out various parts by hand or machine. He/she may also remove old parts of the footwear and clean surfaces. He/she glues lining to leather parts and sews them together, and pulls upper onto last to give it required shape. He/she fixes sole to upper, builds up and fixes heels, trims and smooths footwear and applies inked wax, stain or paint where required.

Example(s) of job classified under this code:

- Footwear repairer
- Orthopaedic footwear maker
- Sole fitter

Occupation 75362 Leather goods maker/assembler

Leather goods maker/assembler makes, by hand and machine, a variety of products consisting mainly of real or artificial leather, such as handbags, wallets, luggage, brief cases, belting, footballs and leather novelties.

Example(s) of job classified under this code:

- Leather craftsman
- Leather goods hand stitcher

Occupation 75369 Shoemaker and related worker n.e.c.

This group covers shoemaker and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Harness maker
- Saddler

Unit Group 7539 Garment, Leather and Related Trades Workers Not Elsewhere Classified

This unit group covers garment, leather and related trades workers not elsewhere classified.

Tasks include:

- performing various sewing tasks in making, altering and repairing articles of textile, leather and other materials
- embroidering decorative designs on garments or materials
- inspecting and testing products, parts and materials for conformity with specifications and standards
- grading and classifying natural textile fibres for spinning and winding
- assembling and covering umbrellas
- sorting and grading pelts, hides and skins
- treating hides to convert them into leather
- applying dyes to fur pelts
- dressing and applying dyes and stains to leather
- performing related tasks

Occupation(s) in this Unit Group:

- 75390 Garment/Leather and related trades worker n.e.c.

Occupation 75390 Garment/Leather and related trades worker n.e.c.

This group covers garment/leather and related trades worker not elsewhere classified.

Example(s) of job classified under this code:

- Artificial flower maker
- Fellmonger
- Fibre mixer and blender
- Tent sewer

- Umbrella maker

MINOR GROUP 754 OTHER CRAFT AND RELATED WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 7541 Underwater Divers
- 7544 Fumigator and Related Pest and Weed Controllers
- 7549 Craft and Related Workers Not Elsewhere Classified

Unit Group 7541 Underwater Divers

Underwater divers work under the surface of water, with or without the aid of underwater breathing apparatus, to inspect, install, repair and remove equipment and structures, conduct tests or experiments, rig explosives, photograph structures or marine life, collect various forms of aquatic life for commercial or research purposes, and find and recover missing items and persons.

Tasks include:

- taking safety precautions, such as monitoring dive lengths and depths, and registering with authorities before diving expeditions begin
- checking and maintaining diving equipment such as helmets, masks, air tanks, diving suits, harnesses and gauges
- descending into water with the aid of diver helpers, using scuba gear or diving suits
- working underwater to lay and repair bridges, piers and harbour-wall foundations
- inspecting for suspected damage and making minor repairs to ships' hulls and underwater installations
- reporting on the condition of wrecked ships
- removing underwater obstructions
- drilling holes for underwater blasting
- performing various underwater tasks connected with salvage work or recovering dead bodies
- gathering shellfish, sponges and other aquatic life forms
- communicating with workers on the surface while under water, using signal lines or telephones
- obtaining information about diving tasks and environmental conditions

Occupation(s) in this Unit Group:

- 75410 Underwater diver

Occupation 75410 Underwater diver

Underwater diver works under the surface of water, with or without the aid of underwater breathing apparatus, to inspect, install, repair and remove equipment and structures, conduct tests or experiments, rig explosives, photograph structures or marine life, collect various forms of aquatic life for commercial or research purposes, and find and recover missing items and persons.

Example(s) of job classified under this code:

- Commercial diver
- Construction diver
- Underwater salvage worker

Unit Group 7544 Fumigator and Related Pest and Weed Controllers

Fumigator and related pest and weed controllers use chemicals to remove harmful insects, small animals, wild plants and other unwanted organisms, to prevent damage to crops and to buildings and other structures and their surroundings, and to prevent health risks.

Tasks include:

- operating and monitoring equipment for spraying pests and weeds
- mixing chemicals according to instructions
- covering areas to specified depths with pesticides, applying knowledge of weather conditions, droplet sizes, elevation-to-distance ratios, and obstructions
- spraying or releasing chemical solutions or toxic gases, and setting traps to kill pests and vermin, such as mice, termites and roaches
- lifting, pushing and swinging nozzles, hoses and tubes in order to direct spray over designated areas
- filling sprayer tanks with water and chemicals
- cleaning and servicing machinery to ensure operating efficiency

Occupation(s) in this Unit Group:

- 75440 Fumigator and related pest/weed controller

Occupation 75440 Fumigator and related pest/weed controller

Fumigator and related pest/weed controller uses chemicals to remove harmful insects, small animals, wild plants and other unwanted organisms, to prevent damage to crops and to buildings and other structures and their surroundings, and to prevent health risks.

Example(s) of job classified under this code:

- Pest exterminator
- Rodent exterminator

Unit Group 7549 Craft and Related Workers Not Elsewhere Classified

This unit group covers craft and related workers not elsewhere classified.

Tasks include:

- ensuring safety precautions
- loading explosives into blast holes

Occupation(s) in this Unit Group:

- 75490 Craft and related worker n.e.c.

Occupation 75490 Craft and related worker n.e.c.

This group covers craft and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Rubber stamp maker
- Shot firer (mine and quarry)
- Wig maker

Example(s) of job not classified under this code:

- Rubber products machine operator, see 81410

MAJOR GROUP 8 PLANT AND MACHINE OPERATORS AND ASSEMBLERS

Occupation(s) in this Major Group are classified into the following Sub-major Group(s):

- 81 STATIONARY PLANT AND MACHINE OPERATORS
- 82 ASSEMBLERS AND QUALITY CHECKERS
- 83 DRIVERS AND MOBILE MACHINERY OPERATORS

SUB-MAJOR GROUP 81 STATIONARY PLANT AND MACHINE OPERATORS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 810 STATIONARY PLANT AND MACHINE SUPERVISORS AND GENERAL FOREMEN
- 811 MINING AND MINERAL PROCESSING PLANT OPERATORS
- 812 METAL PROCESSING, FINISHING AND PRODUCTS PLANT OPERATORS
- 813 CHEMICAL PROCESSING, CHEMICAL AND PHOTOGRAPHIC PRODUCTS PLANT AND MACHINE OPERATORS
- 814 RUBBER, PLASTIC AND PAPER PRODUCTS MACHINE OPERATORS
- 815 TEXTILE, FUR AND LEATHER PRODUCTS MACHINE OPERATORS
- 816 FOOD AND RELATED PRODUCTS MACHINE OPERATORS
- 817 WOOD PROCESSING AND PAPERMAKING PLANT OPERATORS
- 818 OTHER STATIONARY PLANT AND MACHINE OPERATORS

Notes:

Operators of machinery that involves automated control of multiple processes or functions are included in Minor Group 313 ‘Process Control Technicians’.

MINOR GROUP 810 STATIONARY PLANT AND MACHINE SUPERVISORS AND GENERAL FOREMEN

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8100 Stationary Plant and Machine Supervisors and General Foremen

Unit Group 8100 Stationary Plant and Machine Supervisors and General Foremen

Stationary plant and machine supervisors and general foremen supervise production activities of a distinct unit at a well drilling site, or an establishment engaged in processing of mineral ore and stone, metal, wood, or chemicals, or an establishment concerned with the production and distribution of electricity, steam or gas, or with water supply, sewage disposal and treatment, or with refrigeration and assimilated services, or within an establishment in which machines are used in the manufacturing

of various products on an industrial basis. They control and coordinate the activities of workers in various occupations.

Tasks include:

- interpreting specifications and job orders
- determining sequence of operations and use of equipment
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- coordinating the work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 81000 Stationary plant/machine supervisor/general foreman

Occupation 81000 Stationary plant/machine supervisor/general foreman

Stationary plant/machine supervisor/general foreman supervises production activities of a distinct unit at a well drilling site, or an establishment engaged in processing of mineral ore and stone, metal, wood, or chemicals, or an establishment concerned with the production and distribution of electricity, steam or gas, or with water supply, sewage disposal and treatment, or with refrigeration and assimilated services, or within an establishment in which machines are used in the manufacturing of various products on an industrial basis. He/she controls and coordinates the activities of workers in various occupations.

Example(s) of job classified under this code:

- Beverage making general foreman
- Chemical processing general foreman
- Electricity generation and distribution supervisor
- Prefabrication components manufacturing general foreman
- Wood processing supervisor

Example(s) of job not classified under this code:

- Assembly and quality check supervisor, see 82000
- Electronic equipment manufacturing and repairing general foreman, see 82000

MINOR GROUP 811 MINING AND MINERAL PROCESSING PLANT OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8113 Well Drillers and Borers and Related Mining Workers
- 8114 Cement and Related Mineral Products Machine Operators

Unit Group 8113 Well Drillers and Borers and Related Mining Workers

Well drillers and borers and related mining workers operate, assemble and monitor machines for cutting channels in a mine workface or for the drilling and sinking of wells, extraction of ore, liquids and gases or for a variety of other purposes.

Tasks include:

- operating and monitoring machinery and equipment used for continuous mining or for drilling holes or cutting channels in a mine or quarry workface
- operating and monitoring machinery and equipment used for the drilling and sinking of wells
- dismantling, moving and assembling drilling rigs and auxiliary equipment
- assembling and dismantling pipes, casings and drill heads and replacing dysfunctional equipment
- preparing drilling fluid and checking the operation of pumps to ensure adequate circulation of fluid in drill pipes and wells
- maintaining records of drilling and servicing operations
- closing and sealing wells no longer in use

Occupation(s) in this Unit Group:

- 81130 Well driller/borer and related mining worker

Occupation 81130 Well driller/borer and related mining worker

Well driller/borer and related mining worker operates, assembles and monitors machines for cutting channels in a mine workface or for the drilling and sinking of wells, extraction of ore, liquids and gases or for a variety of other purposes.

Example(s) of job classified under this code:

- Caser (oil and gas wells)

Unit Group 8114 Cement and Related Mineral Products Machine Operators

Cement and related mineral products machine operators operate and monitor machines for manufacturing and finishing precast concrete, bitumen and making cast stone for building purposes.

Tasks include:

- setting up and operating stationary plant and machinery which grind, crush, cut, saw and slice rocks, minerals and stones according to the specifications for the job
- operating extrusion, moulding, mixing, pumping, compacting, grinding and cutting machinery to manufacture and finish precast concrete and other mineral products
- operating machines to produce cement, lime and clinker, including loading and unloading ingredients and operating continuous feed equipment such as pumps and conveyors
- operating machines which weigh and mix sand, gravel, cement, water and other ingredients to make concrete
- operating machines which assembles and fills moulds with concrete and artificial stone mixtures, removes castings from moulds and finishes surfaces of precast products
- cutting, grinding, drilling, sandblasting and polishing concrete products and stone blocks, slabs and products to the specifications for the job
- collecting and examining samples of mixtures and finished products for conformity to specifications and adjusting machine settings accordingly
- arranging and assisting with machinery maintenance and repair

Occupation(s) in this Unit Group:

- 81140 Cement and related mineral products machine operator

Occupation 81140 Cement and related mineral products machine operator

Cement and related mineral products machine operator operates and monitors machines for manufacturing and finishing precast concrete, bitumen and making cast stone for building purposes.

MINOR GROUP 812 METAL PROCESSING, FINISHING AND PRODUCTS PLANT OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8121 Metal Melters, Casters and Rolling Mill Operators
- 8122 Metal Heat Treating Plant Operators
- 8123 Metal Drawers and Extruders
- 8124 Metal Finishing, Plating and Coating Machine Operators
- 8125 Machine-Tool Setter-Operators

Unit Group 8121 Metal Melters, Casters and Rolling Mill Operators

Metal melters, casters and rolling mill operators operate, monitor, adjust and maintain single-function machinery and equipment to process and convert mineral ores, cast or roll metals.

Tasks include:

- setting up, preparing and adjusting metal processing machinery to carry out one step in the overall mineral ores or cast metals or roll metals processing
- operating single-function machinery to convert, cast or roll metals and mineral ores
- observing gauges, meters, computer printouts, video monitors and products to ensure correct operation of machine and verify specified processing conditions
- adjusting equipment, valves, pumps, controls and process equipment
- controlling process start-up and shut-down, troubleshooting and monitoring outside process equipment
- verifying equipment for malfunctions, carrying out routine operating tests and arranging for maintenance
- analysing sample products, performing tests, recording data and writing production logs

Occupation(s) in this Unit Group:

- 81210 Metal melter/caster/rolling mill operator

Occupation 81210 Metal melter/caster/rolling mill operator

Metal melter/caster/rolling mill operator operates, monitors, adjusts and maintains single-function machinery and equipment to process and convert mineral ores, cast or roll metals.

Unit Group 8122 Metal Heat Treating Plant Operators

Metal heat treating plant operators operate, monitor, adjust and maintain machinery and equipment to treat and process metals.

Tasks include:

- setting up, preparing and adjusting metal processing machinery to treat and process metals
- operating machinery to treat and process metals
- observing gauges, meters, computer printouts, video monitors and products to ensure correct operation of machine and verify specified processing conditions
- adjusting equipment, valves, pumps, controls and process equipment
- controlling process start-up and shut-down, troubleshooting and monitoring outside process equipment
- verifying equipment for malfunctions, carrying out routine operating tests and arranging for maintenance
- analysing sample products, performing tests, recording data and writing production logs

Occupation(s) in this Unit Group:

- 81220 Metal heat treating plant operator

Occupation 81220 Metal heat treating plant operator

Metal heat treating plant operator operates, monitors, adjusts and maintains machinery and equipment to treat and process metals.

Example(s) of job classified under this code:

- Cyanide hardener
- Metal annealer
- Metal case hardener
- Metal temperer

Unit Group 8123 Metal Drawers and Extruders

Metal drawers and extruders draw and extrude metals through dies to make wire, pipes, tubes and similar products.

Tasks include:

- setting up, preparing and adjusting metal processing machinery to make wires, pipes tubes and similar metal products
- setting and operating a wire-drawing machine
- setting and operating a machine to draw seamless metal tubing
- setting and operating a hydraulic press to extrude metal rods, bars and seamless tubing

Occupation(s) in this Unit Group:

- 81230 Metal drawer/extruder

Occupation 81230 Metal drawer/extruder

Metal drawer/extruder draws and extrudes metals through dies to make wire, pipes, tubes and similar products.

Example(s) of job classified under this code:

- Road extruder operator
- Seamless pipe and tube drawer
- Wire drawer

Unit Group 8124 Metal Finishing, Plating and Coating Machine Operators

Metal finishing, plating and coating machine operators operate and monitor equipment which finishes, plates and coats metal articles or parts, in order to give them improved resistance to corrosion and abrasion, for decorative purposes, or to impart electrical or magnetic properties.

Tasks include:

- operating and monitoring equipment which cleans metal articles in preparation for electroplating, galvanising, enamelling or similar processes
- operating and monitoring electroplating equipment
- operating and monitoring hot-dip equipment used to coat iron and steel products
- operating and monitoring machines which automatically coat wire with non-ferrous metal
- operating and monitoring equipment used to spray molten metal or other substances on metal products to provide a protecting or decorative coating or to build up worn or damaged surfaces
- operating and monitoring equipment used to impart a rust-resistant finish to metal articles by treating them with chemicals and heating them
- checking proper thickness of plating using micrometers, callipers or other devices recording data and writing production logs
- preparing and mixing metalising solutions according to formulas or specifications

Occupation(s) in this Unit Group:

- 81240 Metal finishing/plating/coating machine operator

Occupation 81240 Metal finishing/plating/coating machine operator

Metal finishing/plating/coating machine operator operates and monitors equipment which finishes, plates and coats metal articles or parts, in order to give them improved resistance to corrosion and abrasion, for decorative purposes, or to impart electrical or magnetic properties.

Example(s) of job classified under this code:

- Anodiser
- Casting finisher
- Galvaniser
- Metal sprayer
- Sandblaster (castings)

Example(s) of job not classified under this code:

- Spray painter (excluding ships and motor vehicles), see 71323

Unit Group 8125 Machine-Tool Setter-Operators

Machine-tool setter-operators set up and operate various machine tools working to fine tolerances.

Tasks include:

- setting one or more types of machine tools for production of metal articles in standardised series
- operating and monitoring metalworking machines, such as lathes, milling, planning, boring, drilling, grinding or honing machines, including multi-purpose numerically controlled metalworking machines
- observing machine operations to detect work piece defects or machine malfunctions, adjusting machines as necessary
- inspecting work pieces for defects, and measuring work pieces to determine accuracy of machine operation, using rules, templates, or other measuring instruments
- changing worn machine accessories, such as cutting tools and brushes, using hand tools

Occupation(s) in this Unit Group:

- 81251 Metalworking machine setter-operator
- 81252 Precision grinding machine setter-operator
- 81259 Machine-tool setter-operator n.e.c.

Occupation 81251 Metalworking machine setter-operator

Metalworking machine setter-operator sets up and operates a variety of power-driven precision metal-cutting machines and tools, such as lathes, milling, planing and boring machines.

Example(s) of job classified under this code:

- Cylinder honer
- Machine-tool operator
- Plane mill setter-operator
- Punching press operator
- Stamping press operator

Example(s) of job not classified under this code:

- Metal moulder/coremaker, see 72110
- Blacksmith, see 72210

Occupation 81252 Precision grinding machine setter-operator

Precision grinding machine setter-operator sets up, programmes and controls grinding machines to remove small amounts of excess material and smoothen metal workpieces by using an abrasive wheel with diamond teeth as a cutting device for very precise and light cuts. He/she reads grinding machine blueprints and tooling instructions, performs regular machine maintenance, and makes adjustments to the grinding controls, such as the depth of cuts and the rotation speed.

Example(s) of job classified under this code:

- Metal grinding machine setter-operator

Example(s) of job not classified under this code:

- Metal buffing and polishing machine operator, see 72240

Occupation 81259 Machine-tool setter-operator n.e.c.

This group covers machine-tool setter-operator not elsewhere classified.

Example(s) of job classified under this code:

- Engraving machine operator
- Laser cutting machine operator
- Water jet cutter operator

MINOR GROUP 813 CHEMICAL PROCESSING, CHEMICAL AND PHOTOGRAPHIC PRODUCTS PLANT AND MACHINE OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8131 Chemical Processing and Products Plant and Machine Operators
- 8132 Photographic Products Machine Operators
- 8139 Chemical Processing, Chemical and Photographic Products Plant and Machine Operators Not Elsewhere Classified

Unit Group 8131 Chemical Processing and Products Plant and Machine Operators

Chemical processing and products plant and machine operators monitor and operate units and machinery to blend, mix, process and package a wide range of chemical products.

Tasks include:

- setting up, starting, controlling, adjusting and stopping machines and plant
- monitoring reaction processes and transfers of products in conformity with safety procedures

- monitoring meters, gauges and electronic instrumentation on one or more chemical or formulation units, such as mixers, kettles, blenders, dryers, or tabletting, encapsulation, granulation and coating machines
- measuring, weighing and loading chemical ingredients following formulation cards
- making samples and performing routine chemical and physical tests of products and recording production data
- cleaning and performing minor repairs to machines and plant

Occupation(s) in this Unit Group:

- 81311 Chemical processing/products plant/machine operator
- 81312 Pharmaceutical products machine operator

Occupation 81311 Chemical processing/products plant/machine operator

Chemical processing/products plant/machine operator monitors and operates units and machinery to blend, mix, process and package a wide range of chemical products (excluding pharmaceutical products).

Example(s) of job classified under this code:

- Alcohol distiller
- Fibre maker (synthetic)

Example(s) of job not classified under this code:

- Chemical engineering technician (excluding petroleum, natural gas and petrochemical), see 31161
- Pharmaceutical products machine operator, see 81312

Occupation 81312 Pharmaceutical products machine operator

Pharmaceutical products machine operator monitors and operates units and machinery to blend, mix, process and package a wide range of pharmaceutical products.

Example(s) of job not classified under this code:

- Chemical processing machine operator, see 81311

Unit Group 8132 Photographic Products Machine Operators

Photographic products machine operators operate and monitor equipment which makes photographic film and paper and which processes exposed photographic film and makes prints.

Tasks include:

- operating and monitoring equipment which makes photographic film and paper
- operating, monitoring and testing photographic processing and printing equipment, and maintaining operational standards
- preparing exposed film for different processing batches in dark rooms and dark chambers
- inspecting images, films, prints and adjusting settings on print-making equipment to produce required colour, brightness, contrast, number, size and type of prints
- adjusting settings and running automatic developing equipment
- operating equipment to transfer film to video tape or other electronic media
- performing photographic processing related tasks
- operating automatic equipment (in retail establishments) to develop colour negatives, prints and slides

Occupation(s) in this Unit Group:

- 81320 Photographic products machine operator

Occupation 81320 Photographic products machine operator

Photographic products machine operator operates and monitors equipment which makes photographic film and paper and which processes exposed photographic film and makes prints.

Unit Group 8139 Chemical Processing, Chemical and Photographic Products Plant and Machine Operators Not Elsewhere Classified

This unit group covers chemical processing, chemical and photographic products plant and machine operators not elsewhere classified.

Tasks include:

- operating and monitoring equipment which produces electric cells or other chemical and photographic products

Occupation(s) in this Unit Group:

- 81390 Chemical processing/chemical/photographic products plant/machine operator n.e.c.

Occupation 81390 Chemical processing/chemical/photographic products plant/machine operator n.e.c.

This group covers chemical processing/chemical/photographic products plant/machine operator not elsewhere classified.

MINOR GROUP 814 RUBBER, PLASTIC AND PAPER PRODUCTS MACHINE OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8141 Rubber Products Machine Operators
- 8142 Plastic Products Machine Operators
- 8143 Paper and Paperboard Products Machine Operators

Unit Group 8141 Rubber Products Machine Operators

Rubber products machine operators monitor and operate machines which knead and blend rubber and rubber compounds to produce various components and products from natural and synthetic rubber, such as moulded footwear, domestic articles, insulating materials, industrial accessories or tyres.

Tasks include:

- operating and monitoring machines which knead, mix and blend rubber and rubber compounds for further processing
- operating and monitoring machines which produce sheets of rubber or rubberised fabric by a rolling process
- operating and monitoring machines which extrude compounded rubber or shape vulcanised rubber by moulding
- operating and monitoring machines which build up tyres on a form, vulcanise tyres and mould or rebuild used tyres
- examining outputs for defects and conformity to specifications
- locating defects and repairing worn and faulty tyres by vulcanising or other processes

Occupation(s) in this Unit Group:

- 81410 Rubber products machine operator

Occupation 81410 Rubber products machine operator

Rubber products machine operator monitors and operates machines which knead and blend rubber and rubber compounds to produce various components and products from natural and synthetic rubber, such as moulded footwear, domestic articles, insulating materials, industrial accessories or tyres.

Example(s) of job classified under this code:

- Bead builder (tyre making)
- Hose maker
- Rubber millman

- Tyre recapper

Example(s) of job not classified under this code:

- Rubber stamp maker, see 75490

Unit Group 8142 Plastic Products Machine Operators

Plastic products machine operators monitor and operate machines which knead and blend compounds to obtain plastic materials, which make various plastic components and articles.

Tasks include:

- operating and monitoring machines which knead and blend compounds to obtain plastic materials
- operating and monitoring machines which shape plastic materials by moulding, extrusion, blowing, cutting and other means
- operating and monitoring machines which laminate plastics and plastic impregnated materials
- encasing uncoated wire, cord, cable and optic fibre in plastic
- examining outputs for defects and conformity to specifications
- making and repairing spectacle frames and plastic parts of orthopaedic appliances

Occupation(s) in this Unit Group:

- 81420 Plastic products machine operator

Occupation 81420 Plastic products machine operator

Plastic products machine operator monitors and operates machines which knead and blend compounds to obtain plastic materials, which make various plastic components and articles. He/she may operate and monitor machines which laminate plastics and plastic impregnated materials or may encase uncoated wire, cord, cable and optic fibre in plastic.

Example(s) of job classified under this code:

- Plastic button maker
- Plastic goods casting machine operator

Example(s) of job not classified under this code:

- Fibreglass maker, see 81810

Unit Group 8143 Paper and Paperboard Products Machine Operators

Paper and paperboard products machine operators monitor and operate machines which produce boxes, envelopes, bags and other goods from paper, paperboard and other similar materials.

Tasks include:

- operating and monitoring machines which glue paper to cardboard, cut it to the required length or cut and crease cardboard or paperboard to form box blanks
- operating and monitoring machines which form drinking cups or other containers from paper, paperboard or cardboard
- operating and monitoring machines which cut, fold and glue paper to make envelopes and paper bags, or which form bags from other similar materials

Occupation(s) in this Unit Group:

- 81430 Paper/Paperboard products machine operator

Occupation 81430 Paper/Paperboard products machine operator

Paper/Paperboard products machine operator monitors and operates machines which produce boxes, envelopes, bags and other goods from paper, paperboard and other similar materials.

Example(s) of job classified under this code:

- Paper bag and envelope maker
- Paper box cutting and creasing press operator
- Paper mill operator
- Paper novelty maker

Example(s) of job not classified under this code:

- Paper coating machine operator, see 31399
- Wood processing/Papermaking plant operator, see 81700

MINOR GROUP 815 TEXTILE, FUR AND LEATHER PRODUCTS MACHINE OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8150 Textile, Fur and Leather Products Machine Operators

Unit Group 8150 Textile, Fur and Leather Products Machine Operators

Textile, fur and leather products machine operators monitor and operate machines which prepare fibres and spin, double, twist and wind yarn and thread from natural textile fibres. They twist two or more strands of yarn to prepare single stronger, uniform and heavier strands and treat textiles to make them stiff and water resistant.

Tasks include:

- operating and monitoring machines for tearing woollen rags into fibre
- operating and monitoring machines for cleaning and turning woollen yarn waste into fluffed wool
- operating and monitoring machines which combine textile fibres into uniform blends
- operating and monitoring machines which clean and fluff textile fibres, transform them into sliver, comb them into sliver for first drawing, combine slivers into sliver lap or sliver laps into ribbon lap
- operating draw frame (machine) having number of drawing sets, each set combining several slivers into one of nearly same weight and thickness as any of original sliver
- operating and monitoring machines which spin thread and yarn from roving, wind two or more threads onto bobbin, twist two or more strands of yarn or thread into single strands of yarn to increase strength, smoothness and/or uniformity of yarn, or wind yarn or thread from one package to another
- operating and monitoring spinning frame that draws out and twists roving or sliver into yarn
- operating and monitoring machines for drawing slivers received from drawing machine into loosely twisted strands
- preparing sizing for use in stiffening and finishing cloth and yarn by mixing ingredients such as starch, tallow, resins, soap and water and boiling mixture for specified time in steam
- treating textiles with chemicals to make them water resistant
- cleaning rollers and cylinders of caring machines to remove wool waste
- operating and resurfacing metal drawing rolls of various spinning, combing and lapping machines with new rubber or leather covers

Occupation(s) in this Unit Group:

- 81501 Sewing machine operator
- 81502 Laundry/Dry cleaning worker (machine, non-household)
- 81509 Textile/Fur/Leather products machine operator n.e.c.

Occupation 81501 Sewing machine operator

Sewing machine operator operates and monitors sewing machines to make, repair, darn and renovate textile, fur, synthetic or leather garments or embroider ornamental designs on garments or non garment products. He/she operates button hole making and eyelet holing machines to cut holes, stitch around holes, stitch buttons and fix eyelets to garments.

Example(s) of job classified under this code:

- Embroidering machine operator
- Garment sewing machine operator
- Machine sewer

Example(s) of job not classified under this code:

- Garment knitting machine operator, see 81509

Occupation 81502 Laundry/Dry cleaning worker (machine, non-household)

Laundry/Dry cleaning worker (machine, non-household) operates and monitors machines that use chemicals to wash or dry-clean articles such as cloth and leather garments, linens, drapes or carpets, ensuring the colour and texture of these articles are being maintained. He/she sorts the articles received from clients by fabric type and determines the cleaning technique to be applied.

Example(s) of job classified under this code:

- Laundry press machine operator

Example(s) of job not classified under this code:

- Textile bleacher, see 81509
- Laundry service washer, see 91210

Occupation 81509 Textile/Fur/Leather products machine operator n.e.c.

This group covers textile/fur/leather products machine operator not elsewhere classified.

Example(s) of job classified under this code:

- Carpet weaving loom operator
- Garment knitting machine operator
- Shoemaking machine operator
- Textile bleacher
- Textile press operator

Example(s) of job not classified under this code:

- Sewing machine operator, see 81501

MINOR GROUP 816 FOOD AND RELATED PRODUCTS MACHINE OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8160 Food and Related Products Machine Operators

Unit Group 8160 Food and Related Products Machine Operators

Food and related products machine operators set, operate and attend machinery used to slaughter animals and trim meat from carcasses; bake, freeze, heat, crush, mix, blend and otherwise process foodstuffs, beverages and tobacco leaves.

Tasks include:

- operating and monitoring machinery used to restrain, stun and slaughter animals and to trim carcasses into standard meat and fish cuts
- setting, operating and attending machinery and ovens to mix, bake and otherwise prepare bread and flour confectionery products
- operating machinery to crush, mix, malt, cook and ferment grains and fruits to produce beer, wines, malt liquors, vinegar, yeast and related products
- attending equipment to make jam, toffee, cheese, processed cheese, margarine, syrup, ice, pasta, ice-cream, sausages, chocolate, maize starch, edible fats and dextrin
- operating equipment to cool, heat, dry, roast, blanch, pasteurize, smoke, sterilise, freeze, evaporate and concentrate foodstuffs and liquids used in food processing
- mixing, pulping, grinding, blending and separating foodstuffs and liquids with churning, pressing, sieving, grinding and filtering equipment
- processing tobacco leaves by machine to make cigarettes, cigars, pipe and other tobacco products

Occupation(s) in this Unit Group:

- 81601 Meat/Fish products machine operator
- 81602 Dairy/Confectionery products machine operator
- 81603 Baked/Cereal products machine operator
- 81604 Brewer/Wine and related beverages machine operator
- 81609 Food and related products machine operator n.e.c.

Occupation 81601 Meat/Fish products machine operator

Meat/Fish products machine operator operates machines and performs routine tasks to make various kinds of meat and fish products, such as sausages and fishballs. He/she weighs out various ingredients according to the recipes and minces, mixes and combines the ingredients using machine.

Example(s) of job classified under this code:

- Sausage making machine operator
- Foodstuffs drier operator
- Foodstuffs refrigerating process worker

- Foodstuffs vacuum oven operator

Example(s) of job not classified under this code:

- Butcher, see 75110
- Fishmonger, see 75110

Occupation 81602 Dairy/Confectionery products machine operator

Dairy/Confectionery products machine operator sets up and operates continuous flow or vat-type equipment to process milk, cheese, ice cream, and other dairy products following specific instructions, methods and formulas.

Example(s) of job classified under this code:

- Chocolate making machine operator
- Dairy product pasteurising machine operator
- Ice-cream making machine operator
- Sugar confectionery making machinery operator

Occupation 81603 Baked/Cereal products machine operator

Baked/Cereal products machine operator makes baked products or cereal based products, such as biscuits and noodles and pasta, with the use of machines.

Example(s) of job classified under this code:

- Baked goods products machine operator
- Biscuit making machine operator
- Noodle making machine operator

Occupation 81604 Brewer/Wine and related beverages machine operator

Brewer/Wine and related beverages machine operator sets, operates and attends to machinery used to process and produce beer, wines, malt liquors, coffee, tea, syrup and other beverages.

Example(s) of job classified under this code:

- Germination worker (malting)
- Malt fireman
- Malt vinegar maker
- Tea blending machine operator

- Wine blender

Occupation 81609 Food and related products machine operator n.e.c.

This group covers food and related products machine operator not elsewhere classified.

Example(s) of job classified under this code:

- Bean curd making machine operator
- Grain miller
- Spice miller
- Sugar refining crystalliser operator

MINOR GROUP 817 WOOD PROCESSING AND PAPERMAKING PLANT OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8170 Wood Processing and Papermaking Plant Operators

Unit Group 8170 Wood Processing and Papermaking Plant Operators

Wood processing and papermaking plant operators monitor, operate and control machinery to saw wood, cut veneer, make plywood, produce pulp and paper and to otherwise prepare wood, pulp and paper for further use.

Tasks include:

- examining logs and rough lumber to determine size, condition, quality and other characteristics to decide best lumber cuts to carry out, or operating automated equipment to convey logs through laser scanners which determine the most productive and profitable cutting patterns
- operating and monitoring log-in feed and conveyor systems
- operating and monitoring automated lumber mill equipment from control rooms or equipment consoles such as head saws, resaws and multiblade saws to saw logs, cants, flitches, slabs or wings and remove rough edges from sawn timber into dressed lumber of various sizes, and saw or split shingles and shakes
- operating and monitoring plywood core-laying machines and hot-plate plywood presses and machines which cut veneer
- cleaning and lubricating sawmill equipment
- coordinating and monitoring the operation of screening equipment, washing equipment, digesters, mixing tanks and other pulp processing equipment from automated panel boards in central control room to control the processing of wood, scrap pulp, recyclable paper and other cellulose materials

- operating and monitoring screening equipment, bleaching equipment, digesters, mixing tanks, washers and other pulp processing machinery and equipment to carry out one or more cellulose processing steps
- controlling start-up and shut-down of process machinery and equipment, and observing equipment and machinery panel indicators, gauges, level indicators and other equipment instruments to detect machinery and equipment malfunctions and ensure process steps are carried out according to specifications
- analysing instrument readings and production test samples and making adjustments to pulp production process and equipment as required
- completing and maintaining production reports

Occupation(s) in this Unit Group:

- 81700 Wood processing/Papermaking plant operator

Occupation 81700 Wood processing/Papermaking plant operator

Wood processing/Papermaking plant operator monitors, operates and controls machinery to saw wood, cut veneer, make plywood, produce pulp and paper and to otherwise prepare wood, pulp and paper for further use.

Example(s) of job classified under this code:

- Clipping machine operator (veneer cutting)
- Veneer cutter
- Veneer sheet gluer
- Wood grader

Example(s) of job not classified under this code:

- Paper/Paperboard products machine operator, see 81430

MINOR GROUP 818 OTHER STATIONARY PLANT AND MACHINE OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8181 Glass and Ceramics Plant Operators
- 8182 Steam Engine and Boiler Operators
- 8183 Packing, Bottling and Labelling Machine Operators
- 8184 Printing, Binding and Related Machine Operators
- 8189 Stationary Plant and Machine Operators Not Elsewhere Classified

Unit Group 8181 Glass and Ceramics Plant Operators

Glass and ceramics plant operators monitor and operate kilns, furnaces and other machinery and equipment used in the manufacture of glass, ceramics, porcelain, tiles or bricks. They operate machines to anneal, harden or decorate glass and ceramics.

Tasks include:

- operating and monitoring glass-making furnaces to make glass by melting and fusing pre-mixed ingredients
- tending hot or cold-end spray equipment used to coat glassware with surface hardener
- operating and maintaining machines that press or blow molten glass in moulds to form or shape containers, such as bottles, jars and drinking glasses
- operating a hand press to mould glass into the required shape
- operating a drawing kiln to process molten glass into a continuous sheet of flat glass
- operating and monitoring floating-glass production plant
- operating and maintaining finishing machines to grind, drill, sand, bevel, decorate, wash or polish glass or glass products
- setting and operating press machines to mould ceramic articles from moist clay
- operating machines to mix clay with water to knead it into a suitable plastic condition or semi-liquid form for making ceramic products
- operating and monitoring kilns which bake pottery, porcelain ware and bake bricks and tiles
- operating and monitoring machines for making glaze or abrasives
- operating and monitoring machines which extrude molten glass to form fibreglass filaments
- observing finished products to identify splits, cracks, breaks, colour and other imperfections

Occupation(s) in this Unit Group:

- 81810 Glass/Ceramics plant operator

Occupation 81810 Glass/Ceramics plant operator

Glass/Ceramics plant operator operates machines used in the manufacture of glass, ceramics, fibreglass filaments, porcelain, tiles or bricks. He/she operates machines to anneal, harden or decorate glass and ceramics. He/she may set and maintain the furnace temperature, start the machine and observe the process to detect defects.

Example(s) of job classified under this code:

- Biscuit placer (ceramics)
- Clay fitter press operator
- Fibreglass maker

- Glass annealing furnaceman
- Pottery oven fireman

Example(s) of job not classified under this code:

- Plastic goods casting machine operator, see 81420

Unit Group 8182 Steam Engine and Boiler Operators

Steam engine and boiler operators maintain and operate various types of steam engines, boilers, turbines and auxiliary equipment to provide power and other utility services for commercial, industrial and institutional buildings, at work sites and aboard ships or self-propelled vessels.

Tasks include:

- operating, cleaning, lubricating and monitoring steam engines, boilers and auxiliary equipment such as pumps, compressors and air-conditioning equipment to supply and maintain steam and power for buildings, marine vessels or pneumatic tools
- analysing and recording instrument readings, troubleshooting and performing minor repairs to prevent equipment or system failure
- monitoring and inspecting performance of equipment for efficient operation and ensuring boiler water, chemical and fuel levels are maintained at required levels
- firing coal furnaces by hand or with stokers and gas or oil-fed boilers, using automatic gas feeds or oil pumps
- testing boiler water quality or arranging for testing, adjusting and taking necessary corrective action, such as adding chemicals to prevent corrosion and harmful deposits
- monitoring ship's engine, machinery and equipment indicators, recording variables and reporting abnormalities to the ship engineer officer on watch
- operating and maintaining off-loading liquid pumps and valves

Occupation(s) in this Unit Group:

- 81821 Boiler fireman
- 81822 Ship's oiler/greaser
- 81829 Steam engine/boiler operator n.e.c.

Occupation 81821 Boiler fireman

Boiler fireman tends one or more boilers which produce steam for heat or power. He/she controls valves to maintain the required level of water in boiler, shovels fuel into fireboxes and pokes the fire to obtain maximum heat or sets devices which feed gas, oil or other fuel automatically. He/she checks the temperature and pressure of steam by reading gauges and

feeds fuel or adjusts the stoking mechanism accordingly. He/she may remove ashes from ash pans, clean boilers and flues, and condition boiler water by adding chemicals.

Example(s) of job classified under this code:

- Boiler attendant
- Steam boiler fireman

Occupation 81822 Ship's oiler/greaser

Ship's oiler/greaser lubricates bearings and moving parts of engines and other mechanical equipment on vessels afloat. He/she makes regular rounds of machinery, checks gauges and thermometers and adjusts pressure and flow of lubricants to working parts of machinery. He/she also pours oil and applies grease with grease-guns at specified points of machinery not automatically lubricated. He/she assists engineers and engine-room mechanics in overhauling and repairing engines and other shipboard machinery.

Example(s) of job classified under this code:

- Ship motorman

Occupation 81829 Steam engine/boiler operator n.e.c.

This group covers steam engine/boiler operator not elsewhere classified.

Example(s) of job classified under this code:

- Railway engine fireman
- Ship's engine-room rating
- Ship's fireman
- Ship's stocker

Unit Group 8183 Packing, Bottling and Labelling Machine Operators

Packing, bottling and labelling machine operators monitor and operate machines which weigh, pack and label various products or fill different containers with products.

Tasks include:

- operating and monitoring machines that weigh, wrap, seal and pack various products
- operating and monitoring machines that fill and seal tubes, bottles, cans, boxes, bags and other containers with products such as food, beverages, paints, oils and lotions
- operating and monitoring machines that, by gluing or other methods, label products, packages and various containers

Occupation(s) in this Unit Group:

- 81830 Packing/Bottling/Labelling machine operator

Occupation 81830 Packing/Bottling/Labelling machine operator

Packing/Bottling/Labelling machine operator monitors and operates machines which weigh, pack and label various products or fill different containers with products.

Example(s) of job classified under this code:

- Bottle washing machine operator
- Boxing machine operator (packing)
- Goods branding machine operator
- Machine packer

Example(s) of job not classified under this code:

- Industrial robot operator, see 31392
- Hand packer, see 93201
- Manufacturing labourer, see 93209

Unit Group 8184 Printing, Binding and Related Machine Operators

Printing, binding and related machine operators monitor and operate various types of printing and copying machines which print and copy onto paper or machines which bind and emboss books.

Tasks include:

- operating and monitoring machines that print or photocopy onto paper
- operating and monitoring machines which bind and emboss books
- setting up and supervising the operation of automatic binding and finishing equipment
- binding full, half and limp-bound books and repairing bindings
- folding, collating and sewing signatures by machine
- operating paper guillotines for pre-press and post-press paper cutting and trimming and programming electronically operated units
- operating systems to insert printed materials into newspapers, magazines and envelopes
- embellishing printed products automatically
- operating photographic and electronic reproduction devices

Occupation(s) in this Unit Group:

- 81841 Printing machine operator
- 81842 Bookbinding machine operator
- 81849 Printing/Binding and related machine operator n.e.c.

Occupation 81841 Printing machine operator

Printing machine operator monitors and operates various types of printing and copying machines which print and copy onto paper.

Example(s) of job classified under this code:

- Braille duplicating machine operator
- Direct lithographic pressman
- Letterpress operator
- Offset pressman
- Printing pressman

Example(s) of job not classified under this code:

- Block printer, see 73220

Occupation 81842 Bookbinding machine operator

Bookbinding machine operator performs a series of tasks in binding books with machines. He/she sews together signatures to form book bodies with a sewing machine, compresses sewn-together signatures of book bodies to uniform thickness with a smashing machine, trims books to size with a powered cutting machine, inserts each book into a machine which rounds backs and forms grooves at the back edge in which covers are hinged, stacks and aligns books, glues the superlining and back-lining on each book, glues the cover to the end sheets, and places books in a press to dry.

Example(s) of job classified under this code:

- Book sewing machine operator
- Bookbinding machine sewer

Occupation 81849 Printing/Binding and related machine operator n.e.c.

This group covers printing/binding and related machine operator not elsewhere classified.

Example(s) of job classified under this code:

- Book embosser (machine)
- Book embossing machine operator

- Stapling machine operator

Unit Group 8189 Stationary Plant and Machine Operators Not Elsewhere Classified

This unit group covers stationary plant and machine operators not elsewhere classified.

Tasks include:

- operating and monitoring machines that fills containers with gases (excluding compressed or liquefied gas) or liquids
- operating and monitoring machines that bale press paper

Occupation(s) in this Unit Group:

- 81890 Stationary plant/machine operator n.e.c.

Occupation 81890 Stationary plant/machine operator n.e.c.

This group covers stationary plant/machine operator not elsewhere classified.

Example(s) of job classified under this code:

- Container filling machine operator (excluding compressed and liquefied gas)
- Paper baling machine operator
- Rubber baling press operator

SUB-MAJOR GROUP 82 ASSEMBLERS AND QUALITY CHECKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 820 SUPERVISORS AND GENERAL FOREMEN OF ASSEMBLERS AND QUALITY CHECKERS
- 821 ASSEMBLERS, QUALITY CHECKERS AND TESTERS

MINOR GROUP 820 SUPERVISORS AND GENERAL FOREMEN OF ASSEMBLERS AND QUALITY CHECKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8200 Supervisors and General Foremen of Assemblers and Quality Checkers

Unit Group 8200 Supervisors and General Foremen of Assemblers and Quality Checkers

Supervisors and general foremen of assemblers and quality checkers supervise the production activities of a distinct unit within an establishment concerned with manufacturing and assembling of

electrical and electronic equipment and components and control and coordinate the activities of workers.

Tasks include:

- interpreting specifications and job orders
- determining sequence of operations and use of equipment
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- coordinating the work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 82000 Supervisor/General foreman of assemblers/quality checkers

Occupation 82000 Supervisor/General foreman of assemblers/quality checkers

Supervisor/General foreman of assemblers/quality checkers supervises the production activities of a distinct unit within an establishment concerned with manufacturing and assembling electrical and electronic equipment and components and controls and coordinates the activities of workers.

Example(s) of job classified under this code:

- Electrical equipment manufacturing and repairing supervisor
- Electronic equipment manufacturing and repairing general foreman

Example(s) of job not classified under this code:

- Quality assurance technician, see 31175
- Beverage making general foreman, see 81000

MINOR GROUP 821 ASSEMBLERS, QUALITY CHECKERS AND TESTERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8211 Mechanical Machinery Assemblers
- 8212 Electrical and Electronic Equipment Assemblers
- 8213 Quality Checkers and Testers
- 8219 Assemblers Not Elsewhere Classified

Unit Group 8211 Mechanical Machinery Assemblers

Mechanical machinery assemblers assemble, according to procedures strictly laid down, component parts of mechanical machinery such as engines, motor vehicles, turbines and aircraft.

Tasks include:

- assembling and installing pre-fabricated parts or components to form sub-assemblies, mechanical machinery, engines and finished motor vehicles
- reviewing work orders, specifications, diagrams and drawings to determine materials needed and assembly instructions
- recording production and operational data on specified forms
- inspecting and testing completed components and assemblies
- rejecting faulty assemblies and components

Occupation(s) in this Unit Group:

- 82110 Mechanical equipment/component assembler

Occupation 82110 Mechanical equipment/component assembler

Mechanical equipment/component assembler assembles, according to procedures strictly laid down, component parts of mechanical machinery such as engines, motor vehicles, turbines and aircraft.

Unit Group 8212 Electrical and Electronic Equipment Assemblers

Electrical and electronic equipment assemblers assemble or modify, according to strictly laid down procedures, components of electrical, electro-mechanical and electronic equipment.

Tasks include:

- assembling component parts and electrical and electronic systems and positioning, aligning and fastening units to assemblies, sub-assemblies, or frames using hand or power tools, soldering and micro-welding equipment
- reviewing work orders, specifications, diagrams and drawings to determine materials needed and assembly instructions
- recording production and operational data on specified forms
- operating wire-coiling machines to wind wire coils used in electrical equipment and components such as registers, transformers, armature wires, electric motors and generators

Occupation(s) in this Unit Group:

- 82121 Electrical equipment/component assembler
- 82122 Electronic equipment/component assembler

- 82123 Battery assembler

Occupation 82121 Electrical equipment/component assembler

Electrical equipment/component assembler assembles various parts into finished electrical components, sub-assemblies or machinery and apparatus. He/she assembles parts or mounts them on chassis by means of adjusting, fitting, wiring, positioning and/or welding operations using assembly equipment.

Example(s) of job classified under this code:

- Office machine assembler (electrical)

Example(s) of job not classified under this code:

- Electrical installations technician, see 31131
- Manufacturing labourer, see 93209

Occupation 82122 Electronic equipment/component assembler

Electronic equipment/component assembler assembles various parts into finished electronic components, sub-assemblies or equipment. He/she installs and connects wiring and parts by clamping or soldering.

Example(s) of job classified under this code:

- Semi-conductor device assembler

Example(s) of job not classified under this code:

- Microelectronics (MEMS) technician, see 31141
- Radar technician, see 31141
- Semi-conductor technician, see 31142

Occupation 82123 Battery assembler

Battery assembler assembles cells and other components in a container (battery case) to make a complete storage battery. He/she inserts cells into containers according to the prescribed polarity arrangement, installs covers on cells and fits intercell connectors on posts. He/she burns connectors to posts, pours compound over cells to fill cracks and seal the battery in the case.

Unit Group 8213 Quality Checkers and Testers

Quality checkers and testers inspect finished products or parts for compliance with manufacturer standards.

Tasks include:

- checking and testing finished products or parts for accuracy of assembly
- checking and testing finished products for compliance with weight and other specifications
- checking and testing finished products for defects in finish or operation

Occupation(s) in this Unit Group:

- 82131 Electrical/Electronic products quality checker/tester
- 82132 Mechanical products quality checker/tester
- 82139 Quality checker/tester n.e.c.

Occupation 82131 Electrical/Electronic products quality checker/tester

Electrical/Electronic products quality checker/tester inspects and tests electrical or electronic equipment for conformance to manufacturer's standards. He/she checks equipment and parts according to technical specifications, rejects faulty products and records information on inspection tickets. He/she may inspect mechanical operation of equipment and may inspect components and equipment in various stages of production.

Example(s) of job classified under this code:

- Electrical products tester
- Electronic products quality control operator

Example(s) of job not classified under this code:

- Electrical testing technician, see 31131
- Quality assurance technician, see 31175

Occupation 82132 Mechanical products quality checker/tester

Mechanical products quality checker/tester inspects and tests machinery and related mechanical equipment for finish, mechanical operation and conformance to manufacturer standards. He/she may do minor adjustments and may inspect articles in various stages of production.

Example(s) of job not classified under this code:

- Quality assurance technician, see 31175

Occupation 82139 Quality checker/tester n.e.c.

This group covers quality checker/tester not elsewhere classified.

Example(s) of job classified under this code:

- Chemical products quality control operator
- Petrochemical products tester

Unit Group 8219 Assemblers Not Elsewhere Classified

This unit group covers assemblers not elsewhere classified.

Tasks include:

- assembling component parts and positioning, aligning and fastening units to assemblies, sub-assemblies or frames using power tools, soldering and micro-welding equipment
- reviewing work orders, specifications, diagrams and drawings to determine materials needed and assembly instructions
- recording production and operational data on specified forms

Occupation(s) in this Unit Group:

- 82190 Assembler n.e.c.

Occupation 82190 Assembler n.e.c.

This group covers assembler not elsewhere classified.

Example(s) of job classified under this code:

- Doll and stuffed toy maker
- Metal products assembler
- Toy assembler
- Toymaker (stuffed toys)

SUB-MAJOR GROUP 83 DRIVERS AND MOBILE MACHINERY OPERATORS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 830 MOBILE MACHINERY SUPERVISORS AND GENERAL FOREMEN
- 831 TRAIN OPERATORS AND RELATED WORKERS
- 832 CAR AND LIGHT GOODS VEHICLE DRIVERS
- 833 HEAVY TRUCK AND BUS DRIVERS
- 834 MOBILE MACHINERY OPERATORS
- 835 SHIPS' DECK CREW AND RELATED WORKERS

MINOR GROUP 830 MOBILE MACHINERY SUPERVISORS AND GENERAL FOREMEN

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8300 Mobile Machinery Supervisors and General Foremen

Unit Group 8300 Mobile Machinery Supervisors and General Foremen

Mobile machinery supervisors and general foremen supervise activities of a distinct unit within an establishment concerned with the transport of passengers, material and goods and control the activities of workers in related occupations.

Tasks include:

- interpreting specifications and job orders
- determining sequence of operations and use of equipment
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- coordinating the work of one or more units with other units
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 83000 Mobile machinery supervisor/general foreman

Occupation 83000 Mobile machinery supervisor/general foreman

Mobile machinery supervisor/general foreman supervises activities of a distinct unit within an establishment concerned with the transport of passengers, material and goods and controls the activities of workers in related occupations.

MINOR GROUP 831 TRAIN OPERATORS AND RELATED WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8311 Train Operators
- 8312 Railway Brakers and Related Workers

Unit Group 8311 Train Operators

Train operators drive trains to transport passengers and goods.

Tasks include:

- operating trains
- watching for track hazards, observing signals and indicator gauges
- operating communication systems to communicate with train crews and traffic controllers to ensure safe operation and scheduling of trains
- conducting visual inspections from moving trains to check for obstructions on train tracks
- conducting security patrols in trains prior to and after train service
- broadcasting train service information to commuters
- assisting in the investigation of rail incidents and/or accidents

Occupation(s) in this Unit Group:

- 83110 Train operator

Occupation 83110 Train operator

Train operator drives trains to transport passengers and goods. He/she watches for track hazards, observes signals and indicator gauges and operates communication systems to communicate with train crews and traffic controllers to ensure safe operation and scheduling of trains.

Example(s) of job classified under this code:

- MRT train operator
- Train driver

Example(s) of job not classified under this code:

- Railway signalman, see 83120
- Tram driver, see 83312

Unit Group 8312 Railway Brakers and Related Workers

Railway brakers and related workers take charge of and safeguard railway trains during runs, control the movement of railway traffic by operating signals, switch rolling stock and make up trains in railway yards or train depots.

Tasks include:

- taking charge of and safeguarding trains during run
- controlling flow of railway traffic over section of line by operating signals and switches from control panel or signal box

- switching and coupling rolling stock in railway yards or train depots and sidings in accordance with orders about loading, unloading and makeup of trains
- making up trains for hauling by locomotive or cable and directing their movement along haulage ways
- checking train systems and equipment such as air-conditioning and heating systems, brakes and brake hoses prior to train run

Occupation(s) in this Unit Group:

- 83120 Railway braker and related worker

Occupation 83120 Railway braker and related worker

Railway braker and related worker assists in preparing train for run, safeguards train during trip and switches cars. He/she checks car mechanisms such as couplings, air-brake lines and hand brakes before train departure, examines signalling equipment such as lamps, flags, detonators and fuses, observes train operation to detect over-heated journal boxes, loose couplings or other defects.

Example(s) of job classified under this code:

- Railway gateman
- Railway signalman
- Shunting engine driver
- Train shunter

Example(s) of job not classified under this code:

- MRT train operator, see 83110

MINOR GROUP 832 CAR AND LIGHT GOODS VEHICLE DRIVERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8321 Motorcycle Delivery Men
- 8322 Car, Taxi, Van and Light Goods Vehicle Drivers

Unit Group 8321 Motorcycle Delivery Workers

Motorcycle delivery workers drive and tend motorcycles or motorised personal mobility aids/devices to transport non-mail items.

Tasks include:

- driving and tending motorcycles or motorised personal mobility aids/devices to transport non-mail items such as food and beverage
- observing traffic rules and signals
- cleaning and washing vehicle as well as performing maintenance and minor repairs
- keeping a record of journeys
- delivering messages

Notes:

Non-mail items refer to letters, packages etc. that are sent or delivered by means other than through the postal system.

Occupation(s) in this Unit Group:

- 83211 Motorcycle delivery worker
- 83212 Delivery man using motorised personal mobility aids/devices

Occupation 83211 Motorcycle delivery worker

Motorcycle delivery worker transports and delivers non-mail items by motorcycle.

Example(s) of job classified under this code:

- Motorcyclist (delivery man)
- Motor-tricycle driver (goods)

Example(s) of job not classified under this code:

- Bicycle food deliverer, see 93310

Occupation 83212 Delivery worker using motorised personal mobility aids/devices

Delivery worker using motorised personal mobility aids/devices transports and delivers non-mail items by motorised personal mobility aids/devices.

Example(s) of job classified under this code:

- Electrical bicycle delivery man
- Motorised personal mobility device (PMD) delivery man

Example(s) of job not classified under this code:

- Bicycle food deliverer, see 93310
- Food delivery on foot, see 96299

Unit Group 8322 Car, Taxi, Van and Light Goods Vehicle Drivers

Car, taxi, van and light goods vehicle drivers drive and tend motor cars and vans to transport passengers and non-mail items.

Tasks include:

- driving and tending ambulances, vans, cars or taxis, to transport passengers
- driving and tending cars, vans or small trucks to deliver non-mail items such as food and beverage
- assisting passengers with handling of luggage
- collecting fares, payments for deliveries, or documents certifying deliveries
- operating telecommunications equipment to report location and availability and follow directions of control centre
- determining most appropriate route
- assisting physically challenged passengers
- operating equipment to facilitate the loading and unloading of physically challenged passengers

Notes:

Non-mail items refer to letters, packages etc. that are sent or delivered by means other than through the postal system.

Occupation(s) in this Unit Group:

- 83221 Taxi driver
- 83222 Chauffeur
- 83223 Van driver
- 83224 Ambulance driver
- 83225 Parking valet
- 83226 Private-hire car driver
- 83229 Car/Taxi/Van/Light goods vehicle driver n.e.c.

Occupation 83221 Taxi driver

Taxi driver drives a motorised vehicle to transport passengers on demand at a charge usually based on a meter fare, from one point to another. He/she does not have a fixed route to drive around and he/she also assists passengers boarding or leaving the vehicle.

Example(s) of job classified under this code:

- Cab driver
- Motor car driver (taxi)

Example(s) of job not classified under this code:

- Private-hire car driver, see 83226

Occupation 83222 Chauffeur

Chauffeur drives a motorised vehicle to transport personnel and visitors of businesses, government or other organisations or members of private households. He/she is usually employed by businesses, government and other organisations, or private individuals or families.

Example(s) of job classified under this code:

- Car driver (private service)
- Motor car driver (private)

Occupation 83223 Van driver

Van driver drives a van to pick up and deliver non-mail documents and parcels.

Example(s) of job classified under this code:

- Postal van driver

Occupation 83224 Ambulance driver

Ambulance driver drives an ambulance vehicle to carry sick, injured and emergency cases to hospital in a safe, efficient and courteous manner. He/she places the patient on a stretcher and loads the stretcher into the ambulance, coordinates transport requests including handling of patient transfers to other hospitals.

Example(s) of job not classified under this code:

- Ambulance paramedic, see 32591

Occupation 83225 Parking valet

Parking valet provides assistance to clients by moving their vehicles to a specific parking location. He/she may provide information on parking rates.

Example(s) of job not classified under this code:

- Valet attendant, see 96254

Occupation 83226 Private-hire car driver

Private-hire car driver drives a motorised vehicle to transport passengers on a pre-booked basis and charges a fixed fare, usually a flat fare. He/she does not pick passengers up via street hails and does not drive around a fixed route.

Example(s) of job not classified under this code:

- Taxi driver, see 83221

Occupation 83229 Car/Taxi/Van/Light goods vehicle driver n.e.c.

This group covers car/taxi/van/light goods vehicle driver not elsewhere classified.

Example(s) of job classified under this code:

- Car delivery driver
- Pick-up driver

Example(s) of job not classified under this code:

- Bus driver, see 83311

MINOR GROUP 833 HEAVY TRUCK AND BUS DRIVERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8331 Bus and Tram Drivers
- 8332 Heavy Truck and Lorry Drivers

Unit Group 8331 Bus and Tram Drivers

Bus and tram drivers drive and tend buses or tramcars to transport passengers or goods.

Tasks include:

- driving and tending motor buses, trolley buses or motor coaches to transport passengers or goods locally or over long distances
- driving and tending tramcars transporting passengers
- opening and closing doors before or after passengers board or alight
- assisting passengers with luggage
- controlling lighting and ventilation on buses and trams
- observing traffic to ensure safe progress
- collecting fares or verifying that passengers have the necessary ticket

Occupation(s) in this Unit Group:

- 83311 Bus driver
- 83312 Tram driver

Occupation 83311 Bus driver

Bus driver drives a bus to transport passengers. He/she adheres to service routes schedules and complies with transportation and traffic rules and regulations. He/she responds to incidents or accidents as per advice by Bus Operation Control Centre and provides customer service to commuters to enhance service delivery on board buses, e.g. assist wheelchair commuters to board/alight the bus safely.

Example(s) of job classified under this code:

- Bus captain
- Coach driver

Occupation 83312 Tram driver

Tram driver operates a tram along the designated route and may need to provide live commentary to enhance the guest experience.

Example(s) of job not classified under this code:

- Train driver, see 83110

Unit Group 8332 Heavy Truck and Lorry Drivers

Heavy truck and lorry drivers drive and tend heavy motor vehicles to transport goods, liquids and heavy materials over short or long distances.

Tasks include:

- driving and tending a heavy motor vehicle, such as a lorry with or without a trailer or a dump-truck, to transport goods, liquids or heavy materials over short or long distances
- determining the most appropriate routes
- ensuring goods are stowed and securely covered, to prevent loss and damage
- assisting with or carrying out loading or unloading operations, using various lifting or tipping devices
- carrying out minor maintenance to vehicles and arranging major maintenance and repairs
- estimating weights to comply with load limitations and ensuring the safe distribution of weights

Occupation(s) in this Unit Group:

- 83321 Lorry driver
- 83322 Trailer-truck driver
- 83323 Concrete mix truck driver
- 83324 Waste truck driver
- 83329 Heavy truck/Lorry driver n.e.c.

Occupation 83321 Lorry driver

Lorry driver drives a heavy motor vehicle such as a lorry for the transport of passengers and freight. He/she may assist with delivering parcels and documents. He/she may make minor repairs and keep the vehicle clean and in good running order.

Example(s) of job classified under this code:

- Truck driver

Occupation 83322 Trailer-truck driver

Trailer-truck driver drives a tractor-trailer combination or a truck or a tow truck. He/she may assist with unloading the trailer-truck.

Example(s) of job classified under this code:

- Container truck driver
- Prime mover driver

Occupation 83323 Concrete mix truck driver

Concrete mix truck driver drives and operates trucks to haul concrete from the plant to project sites, and operates pumps to disperse concrete at the site. He/she cleans and maintains the truck and its mechanical parts.

Example(s) of job classified under this code:

- Concrete truck driver

Occupation 83324 Waste truck driver

Waste truck driver drives large vehicles used for refuse collection. He/she drives the vehicles from the homes and facilities where the refuse is collected by the refuse collectors on the lorry and transports the waste to the waste treatment and disposal facilities.

Example(s) of job classified under this code:

- Hooklift trucks with roll-on container driver

- Refuse truck driver

Example(s) of job not classified under this code:

- Lifting truck operator, see 83449
- Waste truck loader, see 96101

Occupation 83329 Heavy truck/Lorry driver n.e.c.

This group covers heavy truck/lorry driver not elsewhere classified.

Example(s) of job classified under this code:

- Water-tank driver

MINOR GROUP 834 MOBILE MACHINERY OPERATORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8342 Earth Moving and Related Machinery Operators
- 8343 Crane, Hoist and Related Equipment Operators
- 8344 Lifting Truck Operators
- 8349 Mobile Machinery Operators Not Elsewhere Classified

Unit Group 8342 Earth Moving and Related Machinery Operators

Earth moving and related machinery operators operate machines to excavate, grade, level, smooth and compact earth or similar materials.

Tasks include:

- operating and monitoring excavating machinery equipped with a movable shovel, grab-bucket or dragline bucket to excavate and move earth, rock, sand, gravel or similar materials
- operating and monitoring machinery for digging trenches for sewers, drainage, water, oil, gas or similar pipelines
- operating and monitoring machinery equipped with a concave steel blade to move, distribute and level earth, sand and other similar materials
- operating and monitoring equipment to remove sand, gravel and mud from the bottom of a body of water
- operating and monitoring machines for hammering wooden, concrete or steel piles into the ground
- operating and monitoring power rollers to compact and smooth layers of materials in making roads, pavements and similar work

- operating and monitoring machines which spread and smooth concrete or bituminous or tar preparations to construct roadways, roads or similar surfaces

Occupation(s) in this Unit Group:

- 83421 Excavating/Trench digging machine operator
- 83422 Dredge operator
- 83423 Pile driver/drilling machine operator
- 83424 Tunnelling machine operator
- 83429 Earth moving and related machinery operator n.e.c.

Occupation 83421 Excavating/Trench digging machine operator

Excavating/Trench digging machine operator operates a power-driven machine, mounted on wheels or crawler tracks, equipped with a moveable shovel, grab-bucket or dragline bucket to excavate and move earth, rock, sand, gravel and similar material. He/she may operate a particular type of machine and be designated accordingly. He/she also conducts pre-operational checks on equipment to ensure proper functioning.

Example(s) of job classified under this code:

- Bulldozer operator
- Dragline bucket operator
- Grab-bucket operator

Notes:

Excavating/Trench digging machine operator typically possesses an excavator licence or its equivalent.

Occupation 83422 Dredge operator

Dredge operator operates various kinds of excavating equipment, mounted on a dredge, to remove sand, gravel and mud from the bottom of a body of water. He/she watches the tide gauge and adjusts the mechanism to keep work uniform. He/she may make minor repairs.

Occupation 83423 Pile driver/drilling machine operator

Pile driver/drilling machine operator operates a power-driven machine equipped with a power hammer or drop-hammer to drive wooden, concrete or steel piles into dry ground or the bottom of a body of water. He/she hoists the pile and lowers it into position for driving, manipulates controls to operate the hammer, makes adjustments to the hoisting engine and hammer and assists in maintaining the machine.

Example(s) of job classified under this code:

- Piling machine operator

Occupation 83424 Tunnelling machine operator

Tunnelling machine operator works on large pieces of tunnelling equipment commonly known as tunnel boring machines. He/she regulates the operation of the machine, adjusting the torque of the rotating cutting wheel and screw conveyor to maximise the stability of the tunnel before tunnel rings are installed. He/she also puts reinforced concrete rings in place using remote controls.

Example(s) of job classified under this code:

- Earth boring machine operator (construction)
- Pipe jacking machine operator

Occupation 83429 Earth moving and related machinery operator n.e.c.

This group covers earth moving and related machinery operator not elsewhere classified.

Example(s) of job classified under this code:

- Asphalt spreading machine operator
- Bituminous paving machine operator
- Concrete finishing machine operator (road paving)
- Road surface laying machine operator
- Stone spreader operator (construction)

Example(s) of job not classified under this code:

- Concrete form worker, see 71141
- Precast concrete erector, see 71149

Unit Group 8343 Crane, Hoist and Related Equipment Operators

Crane, hoist and related equipment operators monitor and operate stationary and mobile cranes and other hoisting equipment.

Tasks include:

- operating and monitoring stationary or mobile cranes by raising and lowering jibs and booms, to lift, move, position or place equipment and materials
- operating and monitoring equipment for hoisting, lowering or raising workers and materials on construction sites

- operating and monitoring machinery used to haul a ferry or barge with goods, passengers and vehicles across short stretches of water
- operating and monitoring cranes equipped with dredging attachments to dredge waterways and other areas
- operating and monitoring cranes mounted on boats or barges to lift, move and place equipment and materials

Occupation(s) in this Unit Group:

- 83431 Crane/Hoist operator (excluding port)
- 83432 Crane operator (on-site)
- 83439 Crane/Hoist and related equipment operator n.e.c.

Occupation 83431 Crane/Hoist operator (excluding port)

Crane/Hoist operator (excluding port) operates a crane mounted on wheels or crawler tracks which can be moved under its own power in any direction. He/she operates power-driven hoisting equipment, usually consisting of a mobile cage or platform, to raise and lower materials and workers employed on construction work. He/she loads or oversees the loading of the cage, platform or other device connected to hoist.

Example(s) of job classified under this code:

- Bridge/Gantry crane operator (non-port)
- Drawbridge operator
- Hoist operator (construction)

Example(s) of job not classified under this code:

- Hoisting equipment rigger, see 72150

Notes:

Crane/Hoist operator (excluding port) is required to pass the relevant crane operator course conducted by an accredited training provider or its equivalent.

Occupation 83432 Crane operator (on-site)

Crane operator (on-site) operates port machinery such as quay cranes, yard cranes, fork lifts and prime movers in a safe and efficient manner that complies with port regulations while ensuring all cargo and ship supplies are discharged and loaded. He/she also inspects the equipment and work site prior to equipment set up based on his/her thorough understanding of the equipment's specifications.

Example(s) of job classified under this code:

- Port bridge crane operator

Example(s) of job not classified under this code:

- Stevedore, see 93331

Notes:

Crane/Hoist operator (excluding port) is required to pass the relevant crane operator course conducted by an accredited training provider or its equivalent.

Occupation 83439 Crane/Hoist and related equipment operator n.e.c.

This group covers crane/hoist and related equipment operator not elsewhere classified.

Example(s) of job classified under this code:

- Cable car operator
- Material handling equipment (MHE) operator

Unit Group 8344 Lifting Truck Operators

Lifting truck operators drive, operate and monitor lifting trucks or similar vehicles to transport, lift and stack pallets with goods.

Tasks include:

- operating and monitoring lifting trucks and similar equipment to load and unload, transport, lift and stack goods and pallets in terminals, harbours, warehouses, factories and other establishments
- positioning lifting devices under, over or around loaded pallets, skids and boxes and securing material or products for transport to designated areas
- inspecting equipment to identify wear and damage
- performing routine maintenance on vehicles and equipment
- keeping records of work undertaken and breakdown of lifting truck and similar equipment

Occupation(s) in this Unit Group:

- 83441 Fork lift truck operator
- 83449 Lifting truck operator n.e.c.

Occupation 83441 Fork lift truck operator

Fork lift truck operator operates power-driven trucks equipped with a fork lift or lifting platform to pick up, transport and raise or mechanically stack bales, crates, cartons and similar objects in a warehouse, storeroom, factory or other establishment. He/she exercises care to

prevent damage to goods. He/she may carry out routine servicing of trucks, tow hand trucks and load or unload trucks.

Example(s) of job classified under this code:

- Fork lift operator

Example(s) of job not classified under this code:

- Warehouse worker, see 93334

Occupation 83449 Lifting truck operator n.e.c.

This group covers lifting truck operator not elsewhere classified.

Example(s) of job classified under this code:

- Industrial truck operator
- Lifting truck operator

Example(s) of job not classified under this code:

- Hooklift trucks with roll-on container driver, see 83324

Unit Group 8349 Mobile Machinery Operators Not Elsewhere Classified

This unit group covers mobile machinery operators not elsewhere classified.

Tasks include:

- operating and monitoring mobile machinery to sweep the roads
- operating and monitoring machinery for agriculture or milking animals

Occupation(s) in this Unit Group:

- 83491 Motorised sweeper operator
- 83492 Airport mobile equipment operator
- 83499 Other mobile machinery operator n.e.c.

Occupation 83491 Motorised sweeper operator

Motorised sweeper operator operates and monitors mobile machinery to clean roads and pavements, and perform other duties to ensure public cleanliness.

Example(s) of job classified under this code:

- Mechanical sweeper driver

Occupation 83492 Airport mobile equipment operator

Airport mobile equipment operator drives and operates heavy or light motorised equipment such as tow-trucks, mobile gangways and other specified equipment used at airports for loading and unloading of passengers and goods, towing and servicing aircraft etc. He/she also maintains equipment and checks for serviceability.

Example(s) of job classified under this code:

- Airport mobile equipment driver

Occupation 83499 Other mobile machinery operator n.e.c.

This group covers other mobile machinery operator not elsewhere classified.

Example(s) of job classified under this code:

- Agricultural machinery operator
- Mobile farm plant operator
- Motorised farm machinery operator
- Pedestrian tractor operator
- Threshing machine operator

MINOR GROUP 835 SHIPS' DECK CREW AND RELATED WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 8350 Ships' Deck Crew and Related Workers

Unit Group 8350 Ships' Deck Crew and Related Workers

Ships' deck crew and related workers carry out deck duties on board ship and similar duties on board other water-borne craft.

Tasks include:

- standing look-out watches at sea and when entering or leaving harbour or other narrow waters
- steering ship according to instructions
- handling ropes and wires and operating mooring equipment
- maintaining and in some cases, operating the ship's equipment, cargo gear, rigging, life-saving and fire-fighting appliances
- performing deck and hull cleaning, scraping, painting and other maintenance duties as required
- breaking out, rigging and stowing cargo-handling gear, stationary rigging and running gear

Occupation(s) in this Unit Group:

- 83501 Port limit helmsman/steersman/engine driver/tugmaster
- 83502 Deckhand
- 83509 Ship's deck crew and related worker n.e.c.

Occupation 83501 Port limit helmsman/steersman/engine driver/tugmaster

Port limit helmsman/steersman/engine driver/tugmaster manoeuvres and handles boats or crafts ferrying ship agents and seafarers between ships and shore, ferrying harbour pilots to board commercial ships, and transporting and supplying ship stores and provisions to ships at anchorages. He/she maintains and services the ship's engine while ensuring compliance with regulatory requirements and organisational procedures.

Example(s) of job classified under this code:

- Kemudi

Occupation 83502 Deckhand

Deckhand serves as senior deck-hand on a seagoing vessel. He/she stands lookout, steers the vessel as directed, handles mooring lines on board, lowers and raises lifeboats, and takes charge of lifeboats and other small boats. He/she also maintains lifeboats, life-saving gear, deck equipment and makes minor repairs, scrapes and cleans painted surfaces of the vessel and repaints them. He/she washes decks and maintains cleanliness of the ship's hull, fittings, superstructure and cargo spaces.

Example(s) of job classified under this code:

- Boatswain
- Lighterman
- Quartermaster (ship)

Occupation 83509 Ship's deck crew and related worker n.e.c.

This group covers ship's deck crew and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Cable-ship hand
- Ferry boatman
- Motor boatman

MAJOR GROUP 9 CLEANERS, LABOURERS AND RELATED WORKERS

Occupation(s) in this Major Group are classified into the following Sub-major Group(s):

- 91 CLEANERS AND RELATED WORKERS
- 92 AGRICULTURAL, FISHERY AND RELATED LABOURERS
- 93 LABOURERS AND RELATED WORKERS
- 94 FOOD PREPARATION AND KITCHEN ASSISTANTS
- 96 WASTE COLLECTION, RECYCLING AND MATERIAL RECOVERY WORKERS AND OTHER ELEMENTARY WORKERS

SUB-MAJOR GROUP 91 CLEANERS AND RELATED WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 910 CLEANING SUPERVISORS
- 911 CLEANERS AND HELPERS IN HOTELS, OFFICES AND OTHER ESTABLISHMENTS
- 912 VEHICLE, WINDOW, LAUNDRY AND OTHER HAND CLEANING WORKERS
- 913 DOMESTIC HELPERS AND CLEANERS

MINOR GROUP 910 CLEANING SUPERVISORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9100 Cleaning Supervisors

Unit Group 9100 Cleaning Supervisors

Cleaning supervisors supervise the activities of a unit performing various cleaning tasks in private households, hotels, offices, hospitals and other establishments, as well as in aircrafts, trains, coaches, trams and similar vehicles, in order to keep the interiors and fixtures clean.

Tasks include:

- determining sequence of operations and use of equipment
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

Occupation(s) in this Unit Group:

- 91000 Cleaning supervisor

Occupation 91000 Cleaning supervisor

Cleaning supervisor supervises the activities of a unit performing various cleaning tasks in private households, hotels, offices, hospitals and other establishments, as well as in aircrafts, trains and similar vehicles, in order to keep the interiors and fixtures clean. He/she ensures service quality delivery and safety and assists in the planning of cleaning operations work plans, incident management and manages inventory of cleaning equipment and materials used in project sites.

Example(s) of job classified under this code:

- Janitor supervisor

Example(s) of job not classified under this code:

- Housekeeping matron, see 51503
- Butler supervisor, see 51504
- Waste collection supervisor, see 96000

MINOR GROUP 911 CLEANERS AND HELPERS IN HOTELS, OFFICES AND OTHER ESTABLISHMENTS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9112 Cleaners and Helpers in Hotels and Related Establishments
- 9113 Cleaners in Offices, Commercial and Industrial Establishments
- 9115 Cleaners in Food and Beverage Establishments
- 9116 Cleaners in Residential and Open Areas

Unit Group 9112 Cleaners and Helpers in Hotels and Related Establishments

Cleaners and helpers in hotels and related establishments perform various cleaning tasks in order to keep clean and tidy the interiors and fixtures of hotels and related establishments.

Tasks include:

- sweeping or vacuum-cleaning, washing and polishing floors, furniture and other fixtures in buildings
- making beds, cleaning bathrooms, supplying towels, soap and related items
- picking up rubbish, emptying garbage containers and taking contents to waste areas for removal

Occupation(s) in this Unit Group:

- 91121 Housekeeping/Linen room attendant
- 91122 Hotel cleaner
- 91129 Cleaner/Helper in hotel and related establishment n.e.c.

Occupation 91121 Housekeeping/Linen room attendant

Housekeeping/Linen room attendant performs any combination of light cleaning duties to maintain private households or commercial establishments, such as hotels and hospitals, in a clean and orderly manner. He/she may make beds, replenish linens, clean rooms and halls, and do vacuuming.

Example(s) of job classified under this code:

- Chambermaid

Example(s) of job not classified under this code:

- Housekeeper (hotel and related establishment), see 51501
- Hotel cleaner, see 91122
- Hotel laundry worker, see 91210
- Domestic helper, see 91300

Occupation 91122 Hotel cleaner

Hotel cleaner performs cleaning duties to keep the hotel building in a clean and orderly condition. He/she cleans floors, shampoos rugs, washes walls and glass, and removes rubbish. He/she may also perform routine maintenance activities, and notify management of need for the repairs.

Example(s) of job classified under this code:

- Motel cleaner

Example(s) of job not classified under this code:

- Housekeeper (hotel and related establishment), see 51501
- Housekeeping attendant, see 91121
- Office cleaner (indoor), see 91131
- Dishwasher, see 91153

Occupation 91129 Cleaner/Helper in hotel and related establishment n.e.c.

This group covers cleaner/helper in hotel and related establishment not elsewhere classified.

Example(s) of job classified under this code:

- Table clearer (catering service)

Example(s) of job not classified under this code:

- Table-top cleaner, see 91152

Unit Group 9113 Cleaners in Offices, Commercial and Industrial Establishments

Cleaners in offices, commercial and industrial establishments perform various cleaning tasks in order to keep clean and tidy the interiors and fixtures of offices, commercial and industrial establishments, including places of worship, hospitals, schools, shopping malls etc.

Tasks include:

- sweeping or vacuum-cleaning, washing and polishing floors, furniture, lifts and lift landing and other fixtures in buildings
- cleaning pantries
- picking up rubbish, emptying garbage containers and taking contents to waste areas for removal
- making use of specialised equipment and solvents to perform various cleaning tasks

Occupation(s) in this Unit Group:

- 91131 Office/Commercial/Industrial establishment indoor cleaner
- 91132 Office/Commercial/Industrial establishment outdoor cleaner
- 91133 Office/Commercial/Industrial establishment multi-skilled cleaner cum machine operator

Occupation 91131 Office/Commercial/Industrial establishment indoor cleaner

Office/Commercial/Industrial establishment indoor cleaner works in a sheltered environment, cleans and keeps in orderly condition the interior of office, commercial and industrial establishments, including places of worship, hospitals, schools, shopping malls etc. He/she wipes tables and windows, disposes waste or litter, vacuums carpets and cleans pantry. He/she may also be required to do outdoor cleaning on a routine basis.

Example(s) of job classified under this code:

- Factory cleaner (indoor)
- Hospital indoor cleaner
- Places of worship indoor cleaner

Example(s) of job not classified under this code:

- Hotel cleaner, see 91122
- Residential area general cleaner, see 91161
- Window cleaner, see 91230
- Domestic helper, see 91300
- Pantry assistant, see 94104
- Tea server, see 94104
- Office attendant, see 96251
- School attendant, see 96259
- Building caretaker, see 96261

Occupation 91132 Office/Commercial/Industrial establishment outdoor cleaner

Office/Commercial/Industrial establishment outdoor cleaner works in an unsheltered environment, cleans and keeps in orderly condition the outdoor compound areas of office, commercial and industrial establishments, including places of worship, hospitals, schools, shopping malls etc. He/she sweeps car parks, mops lifts and lift landing and clears trash bins.

Example(s) of job classified under this code:

- Factory cleaner (outdoor)
- Warehouse cleaner (outdoor)

Example(s) of job not classified under this code:

- Building exterior cleaner, see 71332
- Building caretaker, see 96261

Occupation 91133 Office/Commercial/Industrial establishment multi-skilled cleaner cum machine operator

Office/Commercial/Industrial establishment multi-skilled cleaner cum machine operator uses motorised ride-on machinery (e.g. ride-on road sweeper, integrated scrubber-sweeper), lifting equipment (e.g. scissor lift, boomlift), various handheld machines (e.g. burnisher, single-disc scrubber, hi-pressure jet machine) or specialised cleaning agents to clean office, commercial and industrial establishments, including places of worship, hospitals, schools, shopping malls etc. He/she shampoos carpet, polishes marble, blows leaves and uses motorised equipment to sweep and clean high areas.

Example(s) of job classified under this code:

- Factory multi-skilled cleaner cum machine operator

Unit Group 9115 Cleaners in Food and Beverage Establishments

Cleaners in food and beverage establishments perform various cleaning tasks in order to keep clean and tidy the premises of food and beverage establishments.

Tasks include:

- sweeping and cleaning floors
- collecting plates and utensils and cleaning tables
- washing plates, trays and utensils
- cleaning kitchens
- picking up rubbish, emptying garbage containers and taking contents to waste areas for removal

Occupation(s) in this Unit Group:

- 91151 Food and beverage establishment general cleaner
- 91152 Table-top cleaner
- 91153 Dishwasher
- 91154 Food and beverage establishment multi-skilled cleaner cum machine operator

Occupation 91151 Food and beverage establishment general cleaner

Food and beverage establishment general cleaner cleans tables, removes dirty dishes, replaces soiled table linens and sets tables. He/she replenishes the supply of clean linens, silverware, glassware, and dishes.

Example(s) of job classified under this code:

- Food court general cleaner
- Hawker centre general cleaner
- Restaurant general cleaner

Example(s) of job not classified under this code:

- Table-top cleaner, see 91152
- Dishwasher, see 91153
- Kitchen assistant, see 94101
- Tea server, see 94104
- Building caretaker, see 96261

Occupation 91152 Table-top cleaner

Table-top cleaner collects plates, trays and utensils and cleans tables. He/she may station at the tray-return station to perform such tasks.

Example(s) of job classified under this code:

- Plate collector

Example(s) of job not classified under this code:

- Table clearer (catering service), see 91129
- Food and beverage (F&B) establishment general cleaner, see 91151
- Hawker centre general cleaner, see 91151
- Dishwasher, see 91153
- Kitchen assistant, see 94101

Occupation 91153 Dishwasher

Dishwasher washes plates, trays and utensils and pushes cart in and out of dishwashing bay. He/she may operate dishwashing machine and use conveyor belts in the transportation of plates, trays and utensils.

Example(s) of job classified under this code:

- Dishwashing machine operator

Example(s) of job not classified under this code:

- Hawker centre general cleaner, see 91151
- Table-top cleaner, see 91152

Occupation 91154 Food and beverage establishment multi-skilled cleaner cum machine operator

Food and beverage establishment multi-skilled cleaner cum machine operator uses motorised ride-on machinery (e.g. ride-on road sweeper, integrated scrubber-sweeper), lifting equipment (e.g. scissor lift, boomlift), various handheld machines (e.g. burnisher, single-disc scrubber, hi-pressure jet machine) or specialised cleaning agents to clean the premises of food and beverage establishments.

Unit Group 9116 Cleaners in Residential and Open Areas

Cleaners in residential and open areas perform various cleaning tasks in order to keep clean and tidy the premises of residential areas and common public open areas such as roads, pavements, bus stops, drains, waterways, overhead bridges, expressways, parks, beaches etc.

Tasks include:

- sweeping and cleaning staircases, common corridors, walkways, lifts/lift lobbies, letterbox areas, car parks, void decks, bus stops, overhead bridges, underpasses, footpaths, etc.
- cleaning drains and waterways
- sweeping and cleaning shared facilities like function rooms, resident's corner, pavilions, bin centres, playgrounds, fitness centres etc.
- clearing trash bins
- cleaning rubbish, leaves on driveways and grounds

Occupation(s) in this Unit Group:

- 91161 Residential/Open areas general cleaner
- 91162 Residential/Open areas multi-skilled cleaner cum machine operator

Occupation 91161 Residential/Open areas general cleaner

Residential/Open areas general cleaner cleans and tidies the premises of residential areas and common public open areas such as roads, pavements, bus stops, drains, waterways, overhead bridges, expressways, parks, beaches etc. He/she sweeps residential and open areas and disposes of litter and waste.

Example(s) of job classified under this code:

- Beach general cleaner
- Conservancy general cleaner
- Park general cleaner

Example(s) of job not classified under this code:

- Office cleaner (indoor), see 91131
- Conservancy multi-skilled cleaner cum machine operator, see 91162
- Domestic helper, see 91300
- General waste collection worker, see 96101
- Recycling picker, see 96102

Occupation 91162 Residential/Open areas multi-skilled cleaner cum machine operator

Residential/Open areas multi-skilled cleaner cum machine operator uses motorised ride-on machinery (e.g. ride-on road sweeper, integrated scrubber-sweeper), lifting equipment (e.g. scissor lift, boomlift), various handheld machines (e.g. burnisher, single-disc scrubber, hi-pressure jet machine) or specialised cleaning agents to clean and tidy the premises of

residential areas and common public open areas such as roads, pavements, bus stops, drains, waterways, overhead bridges, expressways, parks, beaches etc. He/she operates sweeping equipment and machinery to remove waste, leaves or debris and maintains, cleans and performs minor repairs to the equipment used.

Example(s) of job classified under this code:

- Conservancy multi-skilled cleaner cum machine operator

Example(s) of job not classified under this code:

- Open areas general cleaner, see 91161

MINOR GROUP 912 VEHICLE, WINDOW, LAUNDRY AND OTHER HAND CLEANING WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9121 Hand Launderers and Pressers
- 9122 Vehicle Cleaners
- 9123 Window Cleaners
- 9129 Cleaning Workers Not Elsewhere Classified

Unit Group 9121 Hand Launderers and Pressers

Hand launderers and pressers launder, press or dry-clean garments, linen and other textiles by hand.

Tasks include:

- laundering and pressing linen, clothing, fabrics and similar articles by hand in a laundry or other establishment
- cleaning, by hand and with chemical solutions, clothing, fabrics, leather goods and similar articles, in a dry-cleaning or other establishment
- replacing buttons and making minor repairs
- placing articles on shelves and hanging articles for delivery and collection

Occupation(s) in this Unit Group:

- 91210 Hand launderer/presser (non-household)

Occupation 91210 Hand launderer/presser (non-household)

Hand launderer/presser (non-household) washes, dry-cleans and irons clothing, bedding, upholstery and similar articles, using cleaning agents, steam irons, vacuum pressers, or hand

pressers. He/she receives articles, marks them for identification and sorts soiled articles according to type and treatment to be given.

Example(s) of job classified under this code:

- Hotel laundry worker
- Laundry and dry cleaning worker (manual, non-household)
- Laundry service ironer
- Laundry service washer

Example(s) of job not classified under this code:

- Dry cleaning worker (machine, non-household), see 81502
- Laundry press machine operator, see 81502
- Textile press operator, see 81509
- Housekeeping attendant, see 91121
- Domestic helper, see 91300

Unit Group 9122 Vehicle Cleaners

Vehicle cleaners wash, clean and polish motor vehicles such as cars, taxis, motorcycles.

Tasks include:

- cleaning, washing and polishing cars and other vehicles, by hand or using hand-held power tools
- vacuuming vehicle interiors and dry cleaning carpets and upholstery
- applying cleaning agents to remove stains from vehicle exteriors and interiors
- washing tyres and wheel arches and blackening tyres
- washing and polishing vehicle windows
- emptying and cleaning compartments in vehicles

Occupation(s) in this Unit Group:

- 91220 Motor vehicle cleaner/polisher

Occupation 91220 Motor vehicle cleaner/polisher

Motor vehicle cleaner/polisher washes, cleans and polishes motor vehicles such as cars, taxis, motorcycles. He/she cleans and polishes surfaces of external parts and interiors of vehicles, using water, cleaning agents, brushes and cloths.

Example(s) of job classified under this code:

- Bus cleaner
- Car detailer
- Vehicle washer

Example(s) of job not classified under this code:

- Ship tank cleaner, see 91291
- Aircraft cleaner, see 91292
- Railway carriage cleaner, see 91293

Unit Group 9123 Window Cleaners

Window cleaners wash and polish windows and other glass fittings.

Tasks include:

- washing windows or other glass surfaces with water or various solutions, drying and polishing them
- using ladders, swinging scaffolds, bosun's chairs, hydraulic bucket trucks and other equipment to reach and clean windows in multi-storey buildings
- selecting appropriate cleaning or polishing implements

Occupation(s) in this Unit Group:

- 91230 Window cleaner

Occupation 91230 Window cleaner

Window cleaner washes and polishes windows and other glass fittings. He/she uses cleaning tools such as sponges and detergents to clean and polish windows, mirrors and other glass surfaces of buildings, both on the interior and exterior. He/she uses specific ladders to clean taller buildings with safety belts for support.

Example(s) of job not classified under this code:

- Building exterior cleaner, see 71332
- Office cleaner (indoor), see 91131
- Factory cleaner (indoor), see 91131

Unit Group 9129 Cleaning Workers Not Elsewhere Classified

This unit group covers cleaning workers not elsewhere classified.

Tasks include:

- cleaning carpets and upholstered furniture using cleaning machines and their attachments
- selecting and applying cleaning agents to remove stains from carpets, furniture and walls
- cleaning stone walls, metal surfaces and fascias using high pressure water cleaners and solvents
- applying chemicals and high pressure cleaning methods to remove micro-organisms from water and filtration systems and using wet vacuums and other suction equipment to remove scale, accumulated dirt and other deposits from swimming pools, cooling tower components and drains

Occupation(s) in this Unit Group:

- 91291 Ship/Ship tank cleaner
- 91292 Aircraft cleaner
- 91293 Railway carriage cleaner
- 91299 Other cleaning worker n.e.c.

Occupation 91291 Ship/Ship tank cleaner

Ship/Ship tank cleaner cleans water, fuel, cargo and bilge tanks on ships using hoses, chemical solvents and specialised equipment.

Example(s) of job not classified under this code:

- Motor vehicle cleaner, see 91220

Occupation 91292 Aircraft cleaner

Aircraft cleaner cleans the interior and exterior of aircraft. He/she prepares and maintains cleaning equipment and tools, cleans and dresses aircraft cabins according to airline specifications. He/she may assist in moving aircraft components, equipment and materials from the store to the respective work areas.

Example(s) of job not classified under this code:

- Motor vehicle cleaner, see 91220

Occupation 91293 Railway carriage cleaner

Railway carriage cleaner cleans interior and exterior of railway carriage.

Example(s) of job classified under this code:

- LRT cleaner
- Monorail cleaner
- MRT cleaner

Example(s) of job not classified under this code:

- Motor vehicle cleaner, see 91220

Occupation 91299 Other cleaning worker n.e.c.

This group covers other cleaning worker not elsewhere classified.

Example(s) of job classified under this code:

- Hydroblaster
- Swimming pool cleaner

Example(s) of job not classified under this code:

- Motor vehicle cleaner, see 91220

MINOR GROUP 913 DOMESTIC HELPERS AND CLEANERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9130 Domestic Helpers and Cleaners

Unit Group 9130 Domestic Helpers and Cleaners

Domestic helpers and cleaners sweep, vacuum-clean, wash and polish, take care of household linen, purchase household supplies, prepare food, serve meals and perform various other domestic duties.

Tasks include:

- sweeping, vacuum-cleaning, polishing and washing floors and furniture, or washing windows and other fixtures
- washing, ironing and mending linen and other textiles
- washing dishes
- helping with preparation, cooking and serving of meals and refreshments
- purchasing food and various other household supplies
- cleaning, disinfecting and deodorising kitchens, bathrooms and toilets
- cleaning windows and other glass surfaces

Occupation(s) in this Unit Group:

- 91300 Domestic helper/cleaner

Occupation 91300 Domestic helper/cleaner

Domestic helper/cleaner sweeps, vacuum-cleans, washes and polishes, takes care of household linen, purchases household supplies, prepares food, serves meals and performs various other domestic duties. He/she may also look after babies and elderly in the household.

Example(s) of job classified under this code:

- Amah
- Housemaid

Example(s) of job not classified under this code:

- House steward, see 51502
- Chambermaid, see 91121
- Housekeeping attendant, see 91121
- Office cleaner (indoor), see 91131
- Residential area general cleaner, see 91161
- Laundry and dry cleaning worker (manual, non-household), see 91210
- Landscape worker, see 92142

SUB-MAJOR GROUP 92 AGRICULTURAL, FISHERY AND RELATED LABOURERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 921 AGRICULTURAL, FISHERY AND RELATED LABOURERS

MINOR GROUP 921 AGRICULTURAL, FISHERY AND RELATED LABOURERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9214 Park, Garden and Landscape Maintenance Workers
- 9219 Agricultural, Fishery and Related Labourers Not Elsewhere Classified

Unit Group 9214 Park, Garden and Landscape Maintenance Workers

Park, garden and landscape maintenance workers perform simple and routine tasks in operations to cultivate and maintain trees, shrubs, flowers and other plants in parks, gardens and landscapes to produce saplings, bulbs and seeds, maintain the appearance of the parks, gardens and landscapes or grow vegetables and flowers by intensive cultivation techniques.

Tasks include:

- loading, unloading and moving supplies, produce and equipment

- preparing garden sites and plots using hand tools and simple machines
- assisting with planting and transplanting flowers, shrubs, trees and lawns
- maintaining gardens and landscapes by watering, weeding and mowing lawns
- cleaning gardens and removing rubbish
- assisting with propagating, planting and potting seeds, bulbs and cuttings
- tending plants by hand watering and weeding
- harvesting and packaging plants for sale and transport
- performing minor repairs on fixtures, buildings and fences

Occupation(s) in this Unit Group:

- 92141 Tree worker/technician
- 92142 Landscape worker
- 92149 Park/Garden/Landscape maintenance worker n.e.c.

Occupation 92141 Tree worker/technician

Tree worker/technician prunes or treats trees or shrubs using handsaws, hand pruners, clippers, and power pruners. He/she works off the ground in the tree canopy and may use truck-mounted lifts or climbing and rigging tools.

Example(s) of job classified under this code:

- Tree lopper

Example(s) of job not classified under this code:

- Gardener, see 61133

Occupation 92142 Landscape worker

Landscape worker performs tasks to support and execute landscape maintenance as per instructions provided and under supervision. He/she performs maintenance tasks such as watering, fertilising, weeding, soil aeration, plant pruning and grass cutting, clearing of horticultural waste and plant pest and disease control for allocated portions of a landscape site. He/she also performs routine maintenance of tools and equipment. He/she may be involved in nursery work or arboricultural maintenance as well.

Example(s) of job classified under this code:

- Gardening labourer
- Landscape nursery worker
- Lawn mower

- Turf layer

Example(s) of job not classified under this code:

- Landscape operations officer, see 31602
- Landscape nursery supervisor, see 61131
- Landscape technician, see 61133
- Domestic helper, see 91300
- Crop farm hand, see 92190
- Farm labourer, see 92190

Occupation 92149 Park/Garden/Landscape maintenance worker n.e.c.

This group covers park/garden/landscape maintenance worker not elsewhere classified.

Example(s) of job classified under this code:

- Golf course labourer
- Sports grounds keeper

Example(s) of job not classified under this code:

- Landscape nursery supervisor, see 61131

Unit Group 9219 Agricultural, Fishery and Related Labourers Not Elsewhere Classified

This unit group covers agricultural, fishery and related labourers not elsewhere classified.

Tasks include:

- digging, shovelling, loading, unloading, stacking, raking, pitching
- spreading manure or fertilisers
- watering and weeding
- cutting grass and pruning trees
- picking fruits, vegetables and various plants
- feeding animals and cleaning animal quarters
- cleaning undergrowth in forest stands
- clearing sea-bed and performing other simple tasks connected with aquatic cultivation

Occupation(s) in this Unit Group:

- 92190 Agricultural/Fishery and related labourer n.e.c.

Occupation 92190 Agricultural/Fishery and related labourer n.e.c.

This group covers agricultural/fishery and related labourer not elsewhere classified.

Example(s) of job classified under this code:

- Aquaculture support worker
- Crop farm hand
- Crop picker
- Farm labourer
- Livestock farm hand

Example(s) of job not classified under this code:

- Livestock farm worker, see 61210
- Farm worker (orchard), see 61900
- Fish farm worker, see 62211
- Motorised farm machinery operator, see 83499
- Gardening labourer, see 92142

SUB-MAJOR GROUP 93 LABOURERS AND RELATED WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 931 CONSTRUCTION LABOURERS AND RELATED WORKERS
- 932 MANUFACTURING LABOURERS AND RELATED WORKERS
- 933 TRANSPORT AND STORAGE LABOURERS

MINOR GROUP 931 CONSTRUCTION LABOURERS AND RELATED WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9310 Civil Engineering and Building Construction Labourers

Unit Group 9310 Civil Engineering and Building Construction Labourers

Civil engineering and building construction labourers perform routine tasks in connection with demolition works as well as the construction of buildings and civil engineering projects such as roads, railways and dams.

Tasks include:

- digging and filling holes and trenches using hand-held tools

- shovelling and spreading gravel and related materials
- trimming and cutting rocks and concrete and bitumen surfaces using jackhammers
- loading and unloading construction materials, excavated material and equipment and transporting them around construction sites using wheelbarrows and hand trucks
- cleaning worksites and removing obstructions
- cleaning used building bricks and doing other simple work on demolition sites
- mixing, pouring and spreading materials such as concrete, plaster and mortar trucks
- cleaning work sites and removing obstructions

Occupation(s) in this Unit Group:

- 93100 Civil engineering/Building construction labourer

Occupation 93100 Civil engineering/Building construction labourer

Civil engineering/Building construction labourer performs routine tasks in connection with demolition works as well as the construction of buildings and civil engineering projects such as roads, railways and dams. He/she performs tasks involving physical labour such as cleans and prepares sites, digs trenches, sets braces to support excavation sites, erects scaffolding and cleans up rubble and debris. He/she may operate hand and power tools such as cement mixers and small mechanical hoists.

Example(s) of job classified under this code:

- Chainman (surveying)
- Road maintenance labourer
- Tent erector

Example(s) of job not classified under this code:

- Bricklayer (construction), see 71120
- Cladding/Curtain wall erector, see 71192
- Demolition worker, see 71199

MINOR GROUP 932 MANUFACTURING LABOURERS AND RELATED WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9320 Manufacturing Labourers and Related Workers

Unit Group 9320 Manufacturing Labourers and Related Workers

Manufacturing labourers and related workers assist the work of machine operators and assemblers and perform a variety of manual tasks in manufacturing, including packing and labelling finished products.

Tasks include:

- weighing, wrapping, sealing and packing material and various products by hand filling bottles, cans, boxes, bags and other containers with products by hand
- labelling products, packages and various containers by hand
- conveying goods, material, equipment etc. to work area, removing finished pieces
- loading and unloading vehicles, trucks and trolleys
- clearing machine blockages, cleaning machinery, equipment and tools
- carrying out manual sorting of products or components

Occupation(s) in this Unit Group:

- 93201 Hand packer
- 93209 Manufacturing labourer and related worker n.e.c.

Occupation 93201 Hand packer

Hand packer packs materials or products by hand in cartons, wooden boxes, crates, kegs and other containers for shipment or storage. He/she wraps articles in paper, shavings, corrugated cardboard, cloth or other material and folds, stacks, arranges or secures articles in containers. He/she may clean surfaces before packing, brush heavy oil on metal articles to prevent rust, seal containers, reinforce containers with wire or metal bands and mark or label containers.

Example(s) of job classified under this code:

- Hand bottler

Example(s) of job not classified under this code:

- Boxing machine operator (packing), see 81830

Occupation 93209 Manufacturing labourer and related worker n.e.c.

This group covers manufacturing labourer and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Crepe mill operator
- Rubber sheets clipper and sorter
- Sheet rubber maker

Example(s) of job not classified under this code:

- Automated assembly line operator, see 31392
- Leather goods assembler, see 75362
- Boxing machine operator (packing), see 81830
- Office machine assembler (electrical), see 82121

MINOR GROUP 933 TRANSPORT AND STORAGE LABOURERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9331 Hand and Pedal Vehicle Drivers
- 9333 Material and Freight Handling Workers

Unit Group 9331 Hand and Pedal Vehicle Drivers

Hand and pedal vehicle drivers propel cycles and similar vehicles to transport passengers or goods.

Tasks include:

- loading or unloading goods, or assisting passengers in getting on or off a vehicle
- moving a vehicle in the desired direction with due regard to other traffic and traffic regulations
- inspecting vehicle components to identify wear and damage
- maintaining vehicles, making minor repairs and installing replacement parts
- collecting fares or charges

Occupation(s) in this Unit Group:

- 93310 Hand/Pedal vehicle driver

Occupation 93310 Hand/Pedal vehicle driver

Hand/Pedal vehicle driver propels cycles and similar vehicles to transport passengers or goods. He/she also maintains vehicles in good running order and does minor repair.

Example(s) of job classified under this code:

- Bicycle food deliverer
- Trishaw pedaller

Example(s) of job not classified under this code:

- Cycle racer, see 34210
- Electrical bicycle delivery man, see 83212

- Motorcycle delivery worker, see 83211
- Motorised personal mobility device (PMD) delivery man, see 83212

Unit Group 9333 Material and Freight Handling Workers

Material and freight handling workers carry out tasks such as packing, carrying, loading and unloading furniture and other household items, or loading and unloading ship and aircraft cargoes and other freight, or carrying and stacking goods in various warehouses.

Tasks include:

- packing office or household furniture, machines, appliances and related goods to be transported from one place to another
- carrying goods to be loaded on or unloaded from vans, trucks, wagons, ships, or aircraft
- loading and unloading grain, coal, sand and similar goods by placing them on conveyor belts, pipes etc.
- connecting hoses between main shore installation pipes and tanks of barges, tankers and other ships to load and unload petroleum, liquefied gases and other liquids
- carrying and stacking goods in warehouses and similar establishments
- sorting cargo prior to loading and unloading

Occupation(s) in this Unit Group:

- 93331 Stevedore
- 93332 Railway/Road vehicle loader
- 93333 Aircraft loader
- 93334 Warehouse worker
- 93335 Vehicle attendant
- 93336 Mover
- 93337 Lashing worker
- 93339 Material/Freight handling worker n.e.c.

Occupation 93331 Stevedore

Stevedore loads and unloads ships' cargoes. He/she carries goods from the quayside into the ship's hold, or vice versa, or places them in position for removal by mechanical means and stows cargo in position in the hold. He/she may load and unload trucks, count, weigh, measure goods, and mark information on them for identification.

Example(s) of job classified under this code:

- Barge loader
- Docker
- Wharfman (docker)

Example(s) of job not classified under this code:

- Port bridge crane operator, see 83432
- Dock berthing man, see 93339

Occupation 93332 Railway/Road vehicle loader

Railway/Road vehicle loader loads and unloads goods carried in trucks, wagons and other vehicles by hand, using hand trucks, skids, bars jacks and similar equipment. He/she also stows articles to form a compact load and to avoid damage in transit and facilitate unloading. He/she may secure loads with ropes or other fastenings, place padding on articles to prevent breakage and secure wagon covers.

Example(s) of job classified under this code:

- Lorry loader
- Railway loader
- Truck loader

Example(s) of job not classified under this code:

- Lorry attendant, see 93335
- Railway porter, see 96213

Occupation 93333 Aircraft loader

Aircraft loader loads and unloads aircraft cargo. He/she stows cargo according to size, weight, type and destination of goods, following general loading instructions and unloads cargo from aircraft onto tractors. He/she lifts, transfers, arranges and secures baggage and cargo onto aircraft according to loading plans. He/she may weigh cargo before loading and keep records of loaded and unloaded items, secure cargo with tie-ropes or other fastenings and pad articles to prevent breakage.

Example(s) of job classified under this code:

- Air cargo ground crew
- Air cargo handler
- Airport baggage handler

Example(s) of job not classified under this code:

- Hotel porter, see 96212
- Airport porter, see 96213

Occupation 93334 Warehouse worker

Warehouse worker carries and stacks goods in a warehouse, market or similar establishment. He/she loads, unloads and propels hand trucks, and stores articles in bins and on shelves according to instructions. He/she may load or unload road trucks or wagons, operate a conveyor, elevator or stacking machine, pack and weigh materials and mark information on them for identification.

Example(s) of job classified under this code:

- Inventory assistant
- Warehouse porter

Example(s) of job not classified under this code:

- Fork lift operator, see 83441

Occupation 93335 Vehicle attendant

Vehicle attendant travels with and assists vehicle drivers during the transportation of goods from one place to another. He/she loads and unloads goods onto and from the vehicle, travels in vehicles guarding goods in transit, signals traffic following the vehicle to overtake when road is clear, and washes and cleans the vehicle. He/she may assist vehicle drivers in doing minor repairs.

Example(s) of job classified under this code:

- Lorry attendant
- Truck driver offsider

Example(s) of job not classified under this code:

- Lorry loader, see 93332

Occupation 93336 Mover

Mover physically hands goods and belongings to be relocated or transported from one place to the other. He/she disassembles goods, machinery or belongings for transportation and assembles or installs them in the new location. He/she also ensures that objects are well protected and packed, secured and placed correctly in transport.

Example(s) of job classified under this code:

- Mover helper

- Relocation mover

Occupation 93337 Lashing worker

Lashing worker performs lashing and unlashing operations on board vessels. He/she also performs vessel berthing and unberthing, and container reefer plugging and unplugging operations.

Example(s) of job classified under this code:

- Car lasher

Occupation 93339 Material/Freight handling worker n.e.c.

This group covers material/freight handling worker not elsewhere classified.

Example(s) of job classified under this code:

- Dock berthing man
- Removal man

Example(s) of job not classified under this code:

- Docker, see 93331

SUB-MAJOR GROUP 94 FOOD PREPARATION AND KITCHEN ASSISTANTS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 941 FOOD PREPARATION AND KITCHEN ASSISTANTS

MINOR GROUP 941 FOOD PREPARATION AND KITCHEN ASSISTANTS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9410 Food Preparation and Kitchen Assistants

Unit Group 9410 Food Preparation and Kitchen Assistants

Food preparation and kitchen assistants clean kitchen areas, wash dishes, prepare ingredients or a small variety of simple food/drinks and perform other duties to assist workers who prepare or serve food and beverages.

Tasks include:

- cleaning equipment, kitchens, food preparation areas and service areas

- assisting cooks and chefs in preparation of food by washing, peeling, chopping, kneading, cutting up, measuring and mixing ingredients
- assembling dishes for service
- unpacking and storing supplies in refrigerators, cupboards and other storage areas
- washing dishes and cooking utensils and putting them away
- checking, transferring, weighing and storing supplies in refrigerators, cupboards and other storage areas
- preparing, cooking, steaming, toasting and heating simple food items or mixing drink ingredients
- packaging food/drinks for takeaway

Notes:

Vendors from street and market stalls of fresh food products not intended for immediate consumption are classified in Unit Group 5211 'Hawker and Stall Holders (Excluding Prepared Food and Drinks)'. Vendors in streets and public places that prepare food and beverages for immediate consumption are classified in Unit Group 5212 'Hawker and Stall Holders (Prepared Food or Drinks)'. Workers who prepare simple food items for immediate consumption, such as hamburger cooks, but have limited direct contact with clients, are classified in Unit Group 9410 'Food Preparation and Kitchen Assistants'.

Occupation(s) in this Unit Group:

- 94101 Kitchen assistant
- 94102 Food/Drink stall assistant
- 94103 Fast food preparer
- 94104 Tea server/steward (excluding bartender, barista and food/drink stall assistant)

Occupation 94101 Kitchen assistant

Kitchen assistant assists in simple food preparation tasks and performs general cleaning duties in kitchen. He/she may also assist in stocktaking and storage of ingredients and beverages.

Example(s) of job classified under this code:

- Bakery assistant
- Food preparer
- Kitchen crew
- Kitchen hand

Example(s) of job not classified under this code:

- Assistant cook, see 51201
- Food and beverage (F&B) establishment general cleaner, see 91151

- Table-top cleaner, see 91152
- Fast food preparer, see 94103

Occupation 94102 Food/Drink stall assistant

Food/Drink stall assistant prepares simple food/drink items from food/drink counters or steam tables in food stalls. He/she may also assist in serving customers and in general duties including collecting payment and/or cleaning in the establishment.

Example(s) of job classified under this code:

- Cafeteria assistant
- Coffee shop assistant
- Food court stall assistant
- Hawker stall assistant (prepared food/drinks)

Example(s) of job not classified under this code:

- Cafeteria cook, see 51201
- Hawker (prepared food/drinks), see 52120

Occupation 94103 Fast food preparer

Fast food preparer prepares and cooks food in a fast food restaurant usually with a limited menu. He/she prepares and cooks basic food items using various large-volume and single-purpose cooking equipment.

Example(s) of job classified under this code:

- Fast food cook
- Short order cook

Example(s) of job not classified under this code:

- Chef (excluding pastry chef), see 34341
- Assistant cook, see 51201
- Cafeteria counter attendant, see 52492
- Kitchen crew, see 94101

Occupation 94104 Tea server/steward (excluding bartender, barista and food/drink stall assistant)

Tea server/steward (excluding bartender, barista and food/drink stall assistant) serves tea and coffee.

Example(s) of job classified under this code:

- Pantry assistant
- Tea attendant

SUB-MAJOR GROUP 96 WASTE COLLECTION, RECYCLING AND MATERIAL RECOVERY WORKERS AND OTHER ELEMENTARY WORKERS

Occupation(s) in this Sub-major Group are classified into the following Minor Group(s):

- 960 WASTE AND RECYCLABLES COLLECTION SUPERVISORS
- 961 WASTE COLLECTION, RECYCLING AND MATERIAL RECOVERY WORKERS
- 962 PORTERS, ATTENDANTS AND RELATED WORKERS

MINOR GROUP 960 WASTE AND RECYCLABLES COLLECTION SUPERVISORS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9600 Waste Collection, Recycling and Material Recovery Supervisors

Unit Group 9600 Waste Collection, Recycling and Material Recovery Supervisors

Waste collection, recycling and material recovery supervisors supervise the activities of a unit performing various general waste and recyclables collection tasks. They may also undertake similar tasks as those performed by the waste and recyclables collection workers.

Tasks include:

- determining sequence of operations and use of equipment
- implementing operation work plans, assisting with the planning of waste and recyclables collection routes, and planning designated and alternate routes for collection to improve work processes
- estimating manpower requirements
- assigning duties to workers
- analysing and resolving work problems
- recommending or initiating personnel action
- supervising co-workers and helping them in their work

- overseeing the handling of potentially dangerous waste and recyclable materials

Occupation(s) in this Unit Group:

- 96000 Waste collection/recycling/material recovery supervisor

Occupation 96000 Waste collection/recycling/material recovery supervisor

Waste collection/recycling/material recovery supervisor supervise the activities of a unit performing various general waste and recyclables collection tasks. He/she may also undertake similar tasks as those performed by the waste and recyclables collection workers.

Example(s) of job not classified under this code:

- Cleaning supervisor, see 91000

MINOR GROUP 961 WASTE COLLECTION, RECYCLING AND MATERIAL RECOVERY WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9610 Waste Collection, Recycling and Material Recovery Workers

Unit Group 9610 Waste Collection, Recycling and Material Recovery Workers

Waste collection, recycling and material recovery workers identify, collect and sort recyclables and discarded items for recycling and disposal.

Tasks include:

- collecting general waste and recyclables from bins and loading into collection vehicles
- mechanical lifting of waste and recycling bins and emptying contents from bins into trucks
- identifying and setting aside items of furniture, equipment, machinery, or components that are suitable for repair, reuse or recycling
- processing of recyclables in a material recovery process chain
- collecting greasy waste from grease interceptors and mobile toilets via tankers

Occupation(s) in this Unit Group:

- 96101 General waste collection/recycling/material recovery worker
- 96102 Waste recycling sorter
- 96109 Waste collection/recycling/material recovery worker n.e.c.

Occupation 96101 General waste collection/recycling/material recovery worker

General waste collection/recycling/material recovery worker collects general waste and recyclables from bins and loads them onto collection vehicles.

Example(s) of job classified under this code:

- Refuse collector
- Waste truck loader

Example(s) of job not classified under this code:

- Waste truck driver, see 83324
- Open areas general cleaner, see 91161
- Waste recycling sorter, see 96102

Occupation 96102 Waste recycling sorter

Waste recycling sorter sorts recyclable materials and waste from a recycling stream, ensures no unsuitable materials wind up among the recyclable materials and processes recyclables in a material recovery process chain. He/she inspects the materials and performs cleaning duties, and works in compliance with waste regulations. He/she also Identifies and sets aside items of furniture, equipment, machinery, or components that are suitable for repair, reuse or recycling.

Example(s) of job classified under this code:

- Recycling picker
- Scrap merchant

Example(s) of job not classified under this code:

- Open areas general cleaner, see 91161
- General waste collection worker, see 96101

Occupation 96109 Waste collection/recycling/material recovery worker n.e.c.

This group covers waste collection/recycling/material recovery worker not elsewhere classified.

Example(s) of job classified under this code:

- Greasy waste collector
- Litter control officer
- Used cooking oil collector
- Waste cooking oil collection worker

MINOR GROUP 962 PORTERS, ATTENDANTS AND RELATED WORKERS

Occupation(s) in this Minor Group are classified into the following Unit Group(s):

- 9621 Porters and Related Workers
- 9625 Attendants
- 9626 Watchmen and Related Workers
- 9627 Concierge and Related Workers
- 9629 Elementary Workers Not Elsewhere Classified

Unit Group 9621 Porters and Related Workers

Porters and related workers carry and deliver messages, packages and other items within an establishment or between establishments, to households and elsewhere, or carry luggage especially at hotels, stations and airports.

Tasks include:

- delivering messages, packages and other items within an establishment or between establishments, or elsewhere
- performing the duties of a post-runner
- delivering various goods to and from enterprises, shops, households and other places
- carrying and delivering luggage at hotels, stations, airports, and elsewhere
- receiving and marking baggage by completing and attaching claim checks
- planning and following the most efficient route
- sorting items to be delivered according to the delivery route

Occupation(s) in this Unit Group:

- 96211 Bell captain
- 96212 Bellboy/Hotel porter
- 96213 Porter (excluding hotel)

Occupation 96211 Bell captain

Bell captain coordinates all bell services such as luggage service and storage, message service and assigning work duties and schedules of bell staff. He/she communicates and interacts with guests, and attends to their enquiries and complaints effectively. He/she also oversees the grooming of bell staff and coaches them on their performance and all aspects of bell service.

Example(s) of job classified under this code:

- Bell attendant

Occupation 96212 Bellboy/Hotel porter

Bellboy/Hotel porter greets guests, directs them to the check-in desk, escorts them and carries their luggage to their designated rooms. He/she ensures the safety and security of all guests' belongings and manages mails, faxes and couriered items. He/she also explains the amenities and facilities of the property's room to guests. He/she may be required to run errands or perform supporting duties for other departments.

Example(s) of job classified under this code:

- Valet service boy (hotel)

Example(s) of job not classified under this code:

- Airport baggage handler, see 93333
- Porter (excluding hotel), see 96213
- Hospital porter, see 96253

Occupation 96213 Porter (excluding hotel)

Porter (excluding hotel) handles baggage for travellers at transportation terminals.

Example(s) of job classified under this code:

- Airport porter
- Railway porter

Example(s) of job not classified under this code:

- Railway loader, see 93332
- Airport baggage handler, see 93333
- Hotel porter, see 96212
- Hospital porter, see 96253

Unit Group 9625 Attendants

Attendants look after and maintain parking places and health and sanitary places. They may also perform other general duties such as issuing and collecting parking or admission tickets, collecting fees and delivering supplies and equipment.

Tasks include:

- recording or checking parking time and collecting parking fees

- directing vehicle drivers to parking spaces
- patrolling parking areas in order to prevent vehicle damage and vehicle property thefts
- delivering laboratory supplies, equipment or specimens to designated work areas and cleaning laboratory equipment
- moving patients to treatment units and distributing dressing packs, treatment trays and other supplies

Occupation(s) in this Unit Group:

- 96251 Office/Library attendant
- 96252 Laboratory attendant
- 96253 Hospital/Clinic attendant
- 96254 Car park attendant
- 96255 Sports/Recreational attendant
- 96256 Bus attendant
- 96257 Restroom attendant
- 96259 Attendant n.e.c.

Occupation 96251 Office/Library attendant

Office/Library attendant collects and distributes files and runs errands within office. He/she maintains the cleanliness of office, collects mail from post office, addresses and seals envelopes prior to posting them.

Example(s) of job classified under this code:

- Office runner

Example(s) of job not classified under this code:

- Librarian, see 26221
- Library assistant, see 44110
- Office cleaner (indoor), see 91131

Occupation 96252 Laboratory attendant

Laboratory attendant cleans laboratory equipment, such as glassware, metal instruments, sinks, tables, and test panels, using solvents, brushes and rags. He/she may sterilise glassware and instruments, label tubes and bottles and fill them with specified solutions and deliver supplies and laboratory specimens to designated work areas.

Example(s) of job classified under this code:

- Laboratory courier

Occupation 96253 Hospital/Clinic attendant

Hospital/Clinic attendant assists in care of hospital patients under the direction of nursing and medical staff. He/she bathes, dresses patients, serves and collects food trays, feeds patients requiring help and transports patients to treatment units using wheel-chair or wheeled carriage or assists them to walk. He/she also dusts and cleans patients' room, cleans, sterilises, stores, prepares and issues dressing packs, treatment trays and other supplies.

Example(s) of job classified under this code:

- Clinic attendant
- Hospital porter

Example(s) of job not classified under this code:

- Hospital indoor cleaner, see 91131

Occupation 96254 Car park attendant

Car park attendant supervises the parking of vehicles in private and public car-parks. He/she records the time of entry and exit, calculates and collects parking fee, issues receipts and records particulars of vehicles and reports non-payment of fees.

Example(s) of job classified under this code:

- Valet attendant

Example(s) of job not classified under this code:

- Parking valet, see 83225

Occupation 96255 Sports/Recreational attendant

Sports/Recreational attendant performs a variety of duties at amusement or recreation facility. He/she schedules the use of recreation facilities, maintains and provides equipment to participants of sporting events or recreational pursuits, or operates amusement concessions and rides.

Example(s) of job classified under this code:

- Bowling alley attendant
- Funfair attendant
- Golf caddie
- Golf marshal

- Swimming pool attendant

Example(s) of job not classified under this code:

- Sports grounds keeper, see 92149
- Building caretaker, see 96261

Occupation 96256 Bus attendant

Bus attendant monitors the activities on buses to ensure and supervise the students' safety and good behaviour. He/she assists students in boarding/alighting at various stops and supports the driver and provides assistance in case of emergency.

Example(s) of job classified under this code:

- School bus aide

Occupation 96257 Restroom attendant

Restroom attendant cleans and maintains toilet facilities before, during and after operational service hours, in accordance with company standards and policies. He/she uses cleaning equipment to clean mirrors, floors, toilets and sinks, refills the facility with supplies as needed and maintains records of daily operations.

Occupation 96259 Attendant n.e.c.

This group covers attendant not elsewhere classified.

Example(s) of job classified under this code:

- School attendant
- Usher

Example(s) of job not classified under this code:

- Office cleaner (indoor), see 91131
- Building caretaker, see 96261

Unit Group 9626 Building Caretaker and Related Workers

Building caretaker and related workers take care of apartment houses, hotels, offices, churches and other buildings and maintain them and associated grounds in a clean and orderly condition.

Tasks include:

- participating in cleaning, simple repairs and maintenance of building interiors

- regulating conduct of tenants and visitors in matters such as noise abatement or misuse of property
- providing small services to absent tenants such as accepting deliveries on their behalf or providing requested information to callers
- notifying management and owners of buildings of the need for major repairs
- patrolling buildings to ensure security is maintained
- filling out registration forms and providing tenants with copies of rules

Occupation(s) in this Unit Group:

- 96261 Building caretaker
- 96262 Doorman
- 96269 Building caretaker and related worker n.e.c.

Occupation 96261 Building caretaker

Building caretaker takes care of building. He/she guards against any theft or illegal entry. He/she may keep surroundings clean and tidy and sweep interior and exterior of building.

Example(s) of job classified under this code:

- Apartment house concierge

Example(s) of job not classified under this code:

- Patrolman (private establishment), see 54144
- Hospital indoor cleaner, see 91131
- Factory cleaner (outdoor), see 91132
- Office cleaner (outdoor), see 91132
- Sports/Recreational attendant, see 96255
- School attendant, see 96259
- Concierge (hotel), see 96272

Occupation 96262 Doorman

Doorman provides personal service for patrons or guests of a hotel or similar establishment by opening doors, hailing taxi-cabs, and assisting persons into and out of motor vehicles. He/she may help guests with luggage or provide other personal services.

Example(s) of job classified under this code:

- Door attendant

Occupation 96269 Building caretaker and related worker n.e.c.

This group covers building caretaker and related worker not elsewhere classified.

Example(s) of job classified under this code:

- Lighthouse keeper

Unit Group 9627 Concierge and Related Workers

Concierge and related workers provide information to customers and assist guests with personal services.

Tasks include:

- coordinating and carrying out customers' requests
- assisting with various travel arrangements and tours of local attractions
- recommending entertainment highlights
- assisting with the booking of transportation, restaurants, tickets to special events and other services

Occupation(s) in this Unit Group:

- 96271 Chief concierge (hotel)
- 96272 Concierge (hotel)

Occupation 96271 Chief concierge (hotel)

Chief concierge (hotel) manages all aspects of the concierge operations to ensure that the team is functioning in accordance with the hotel's policies and standards. He/she serves the needs of guests, runs errands, handles luggage, coordinates guest requests with designated vendors and carries out special requests such as wedding proposals or anniversaries when required. He/she also sets departmental goals, manages the inventories, daily roster, training, discipline and performance of concierge team members. He/she informs and updates other departments of concierge services and ensures that departments are aware of guests' needs.

Example(s) of job classified under this code:

- Hotel assistant chief concierge

Occupation 96272 Concierge (hotel)

Concierge (hotel) serves as the point of contact for property guests by providing guidance and assistance during their stay. He/she anticipates and meets the needs of guests, makes reservations, plans special events, parties and meetings, delivers luggage and mail and provides information about local shopping, dining, nightlife and recreational activities. He/she

also performs secretarial and office duties, lobby maintenance, and supports other departments as required.

Example(s) of job not classified under this code:

- Hotel front desk clerk, see 42242
- Apartment house concierge, see 96261

Unit Group 9629 Elementary Workers Not Elsewhere Classified

This unit group covers elementary workers not elsewhere classified.

Tasks include:

- handing out leaflets and free newspapers at designated locations
- distributing newspapers to households
- receiving immediate payment or collecting money from vending machines, parking meters or similar coin-boxes
- reading electricity, gas or water meters and recording consumption
- verifying readings in cases where consumption appears to be abnormal, and record possible reasons for fluctuations
- inspecting meters for unauthorised connections, defects, and damage such as broken seals

Occupation(s) in this Unit Group:

- 96291 Leaflet/Newspaper distributor/deliverer
- 96292 Meter reader/Vending-machine collector
- 96293 Odd job person
- 96299 Other elementary worker n.e.c.

Occupation 96291 Leaflet/Newspaper distributor/deliverer

Leaflet/Newspaper distributor/deliverer hands out newspapers or flyers, leaflets and advertisements either directly to the people on the streets or via mailboxes.

Example(s) of job classified under this code:

- Newspaper delivery man

Occupation 96292 Meter reader/Vending-machine collector

Meter reader/Vending-machine collector reads electric or water consumption meters and records volume used by residential and commercial consumers, and removes cash and

conducts visual inspections of vending-machines. He/she takes reading of meter dials, checks readings to locate abnormal consumption and records reasons for fluctuations. He/she also inspects meters and connections for defects, damage and unauthorised connections and indicates irregularities on forms for necessary action. He/she refills goods sold for vending and other coin-operated machines and may carry out basic maintenance.

Example(s) of job classified under this code:

- Coin machine collector
- Parking meter reader
- Ticket dispenser servicer

Occupation 96293 Odd job person

Odd job person performs tasks of a simple and routine nature that usually require physical effort. He/she lifts, carries, moves and stacks heavy materials, digs holes or trenches using pick or shovel, removes waste material from working areas, sweeps roads and collects garbage.

Example(s) of job classified under this code:

- Handyman
- Labourer

Occupation 96299 Other elementary worker n.e.c.

This group covers other elementary worker not elsewhere classified.

Example(s) of job classified under this code:

- Food delivery on foot

Example(s) of job not classified under this code:

- Electrical bicycle delivery man, see 83212

MAJOR GROUP X WORKERS NOT ELSEWHERE CLASSIFIED

Occupation X1000 Worker reporting unidentifiable or inadequately described occupation

This group covers persons reporting occupations which cannot be identified, occupations not sufficiently well described to permit classification in one of the preceding major groups and occupations not classifiable elsewhere because of erroneous reporting or for other reasons.

Occupation X2000 Worker not reporting any occupation

This group covers those not reporting any information as to their occupation.

Occupation X3000 Singapore armed forces personnel

This group covers personnel who are serving in the armed forces, including auxiliary services, whether on a voluntary or involuntary basis. Included are regular members of the army, navy, air force and other military services, as well as temporary members enrolled for full-time training or other services.

Example(s) of job not classified under this code:

- Commercial airline pilot, see 21721

Notes:

This group excludes persons in civilian employment, such as administrative staff of government establishments concerned with defence, police (other than military police), customs inspectors and members of other armed civilian services, members of military reserves not currently on full-time active service and persons who have been temporarily withdrawn from civilian life for a short period of military training.

Many jobs performed by members of the armed forces are similar, in terms of the nature of the work performed, to civilian occupations such as medical doctors, radio operators, cooks, secretaries and heavy truck drivers. Conceptually, it may be appropriate, therefore, to classify such jobs in the armed forces with similar civilian jobs. This approach is adopted in several national occupation classifications. For purposes of international comparability, however, where data pertaining to members of the armed forces are reported and classified by occupation, they should be included, where possible, under ISCO's 'Armed Forces Occupations'.

Occupation X4000 Foreign armed forces personnel

This group covers members of foreign armed forces based in Singapore.

Notes:

This group excludes persons in civilian employment such as administrative staff.

Occupation X5000 Foreign diplomatic personnel

This group covers foreign diplomats and consular representatives such as ambassadors, high commissioners, attachés, etc.

Example(s) of job classified under this code:

- Foreign ambassador
- Foreign consular official