

# **KHUNG PHÂN LOẠI QUỐC TẾ THEO NGÀNH NGHỀ ĐÀO TẠO**

## **INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS**

**HÀ NỘI, 2002**



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# INTERNATIONAL STANDARD CLASSIFICATION

## OF OCCUPATIONS

### ISCO-88

#### MAJOR, SUBMAJOR AND MINOR GROUPS

Major group 1: Legislators, senior officials and managers

11 Legislators and senior officials

111 Legislators

112 Senior government officials

113 Traditional chiefs and heads of villages

114 Senior officials of special interest organizations

12 Corporate managers

121 Directors and chief executives

122 Production and operations department managers

123 Other departmental managers

13 General managers

131 General managers

Major group 2: Professionals

21 Physical, mathematical and engineering science professionals

211 Physicists, chemists and related professionals

212 Mathematicians, statisticians and related professionals

213 Computing professionals

214 Architects, engineers and related professionals

22 Life science and health professionals

221 Life science professionals

222 Health professionals (except nursing)

223 Nursing and midwifery professionals

23 Teaching professionals

231 College, university and higher education teaching professionals

232 Secondary education teaching professionals

233 Primary and pre-primary education teaching professionals

234 Special education teaching professionals

235 Other teaching professionals

24 Other professionals

241 Business professionals

242 Legal professionals

243 Archivists, librarians and related information professionals

244 Social sciences and related professionals

245 Writers and creative or performing artists

246 Religious professionals

Major group 3: Technicians and associate professionals

31 Physical and engineering science associate professionals

311 Physical and engineering science technicians

312 Computer associate professionals

313 Optical and electronic equipment operators

314 Ship and aircraft controllers and technicians

315 Safety and quality inspectors

32 Life science and health associate professionals

321 Life science technicians and related associate professionals

322 Modern health associate professionals (except nursing)

323 Nursing and midwifery associate professionals

324 Traditional medicine practitioners and faith-healers

33 Teaching associate professionals

331 Primary education teaching associate professionals

332 Pre-primary education teaching associate professionals

333 Special education teaching associate professionals

334 Other teaching associate professionals

34 Other associate professionals

341 Finance and sales associate professionals

342 Business services agents and trade brokers

343 Administrative associate professionals

344 Customs, tax and related government associate professionals

345 Police inspectors and detectives

346 Social work associate professionals

347 Artistic, entertainment and sports associate professionals

348 Religious associate professionals

Major group 4: Clerks

41 Office clerks

411 Secretaries and keyboard-operating clerks

412 Numerical clerks

413 Material-recording and transport clerks

414 Library, mail and related clerks

419 Other office clerks

42 Customer service clerks

421 Cashiers, tellers and related clerks

422 Client information clerks

Major group 5: Service workers and shop and market sales workers

51 Personal and protective services workers

511 Travel attendants and related workers

512 Housekeeping and restaurant services workers

513 Personal care and related workers

514 Other personal service workers

515 Astrologers, fortune-tellers and related workers

516 Protective services workers

52 Models, salespersons and demonstrators

521 Fashion and other models

522 Shop salespersons and demonstrators

523 Stall and market salespersons

Major group 6: Skilled agricultural and fishery workers

61 Market-oriented skilled agricultural and fishery workers

611 Market gardeners and crop growers

612 Market-oriented animal producers and related workers

613 Market-oriented crop and animal producers

614 Forestry and related workers

615 Fishery workers, hunters and trappers

62 Subsistence agricultural and fishery workers

621 Subsistence agricultural and fishery workers

Major group 7: Craft and related trades workers

71 Extraction and building trade workers

711 Miners, shot-firers, stonecutters and carvers

712 Building frame and related trades workers

713 Building finishers and related trades workers

714 Painters, building structure cleaners and related trade workers

72 Metal, machinery and related trades workers

721 Metal moulders, welders, sheet-metalworkers, structural-metal preparers and related trades workers

722 Blacksmiths, toolmakers and related trades workers

723 Machinery mechanics and fitters

724 Electrical and electronic equipment mechanics and fitters

73 Precision, handicraft, printing and related trades workers

731 Precision workers in metal and related materials

732 Potters, glass-makers and related trades workers

733 Handicraft workers in wood, textile, leather and related materials

734 Printing and related trades workers

74 Other craft and related trades workers

741 Food processing and related trades workers

742 Wood treaters, cabinet-makers and related trades workers

743 Textile, garment and related trades workers

744 Felt, leather and shoemaking trades workers

Major group 8: Plant and machine operators and assemblers

81 Stationary plant and related operators

811 Mining and mineral-processing plant operators

812 Metal-processing plant operators

813 Glass, ceramics and related plant operators

814 Wood processing and papermaking plant operators

815 Chemical processing plant operators

816 Power production and related plant operators

817 Automated assembly-line and industrial robot operators

82 Machine operators and assemblers

821 Metal and mineral products machine operators

822 Chemical products machine operators

823 Rubber and plastic products machine operators

824 Wood products machine operators

825 Printing, binding and paper products machine operators

826 Textile, fur and leather products machine operators

827 Food and related products machine operators

828 Assemblers

829 Other machine operators and assemblers

83 Drivers and mobile plant operators

831 Locomotive engine-drivers and related workers

832 Motor vehicle drivers

833 Agricultural and other mobile plant operators

834 Ships' deck crews and related workers

Major group 9: Elementary occupations

91 Sales and services elementary occupations

911 Street vendors and related workers

912 Shoe cleaning and other street services' elementary occupations

913 Domestic and related helpers, cleaners and launderers

914 Building caretakers, window and related cleaners

915 Messengers, porters, doorkeepers and related workers

916 Garbage collectors and related labourers

92 Agricultural, fishery and related labourers

921 Agricultural, fishery and related labourers

93 Labourers in mining, construction, manufacturing and transport

931 Mining and construction labourers

932 Manufacturing labourers

933 Transport labourers and freight handlers

Major group 0: Armed forces

01 Armed forces

011 Armed forces

 See also the [University of Warwick's website](#).

Updated by AL. Approved by AMO. Last update: May 18, 2000.

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International Labour Organization

Statistics

## RESOLUTION CONCERNING THE REVISION OF THE INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS (October-November 1987)

The Fourteenth International Conference of Labour Statisticians,

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Recalling the recommendation of the Eleventh International Conference of Labour Statisticians endorsing the revised International Standard Classification of Occupations, 1968 (ISCO-68); and

Recalling the recommendation of the Thirteenth International Conference of Labour Statisticians concerning the revision of ISCO-68;

Adopts, this sixth day of November 1987, the following Resolution, which replaces that adopted in 1966:

1. The occupational classification system of major, sub-major, minor and unit groups shown in the annex to this Resolution is endorsed by the Conference and is designated the International Standard Classification of Occupations, 1988 (ISCO-88).
2. ISCO classifies jobs past, present or future. It classifies persons through their actual and potential relation with jobs. Jobs are classified with respect to the type of work performed or to be performed. The basic criteria used to define the system of major, sub-major, minor and unit groups are the "skill" level and "skill specialisation" required to carry out the tasks and duties of the occupations, with separate major groups for "Legislators, senior officials and managers" and for "Armed forces".
3. In collecting and processing statistics classified by occupation (e.g. for use in fields such as labour market analysis; education planning; manpower planning; occupational health analysis; wages analysis, etc.), each country should ensure the possibility of conversion into the ISCO-88 system to facilitate international use of occupational information.
4. Countries should make available to and discuss with the ILO information about how the group, aggregates thereof or subdivisions thereof defined in the classification(s) used for national purposes can best be related to the major, sub-major, minor and unit groups of ISCO-88.
5. The Conference notes that the Bureau of Statistics has provided:
  - (a) draft definitions of the major, sub-major, minor and unit groups;
  - (b) definitions and descriptions of certain occupational categories which are used in its October Inquiry<sup>(1)</sup>.
6. The Conference notes that the Bureau of Statistics will provide:
  - (a) guidelines on how to collect and process occupational information in statistical censuses and surveys, and in administrative records to ensure high and uniform quality of occupational statistics;
  - (b) a Manual on how to develop and use national occupational classifications and dictionaries.

### ANNEX

MAJOR, SUB-MAJOR, MINOR AND UNIT GROUP TITLES

MAJOR GROUP 1

LEGISLATORS, SENIOR OFFICIALS AND MANAGERS

11 LEGISLATORS AND SENIOR OFFICIALS

111 LEGISLATORS

1110 Legislators

112 SENIOR GOVERNMENT OFFICIALS

1120 Senior government officials

113 TRADITIONAL CHIEFS AND HEADS OF VILLAGES

1130 Traditional chiefs and heads of villages

114 SENIOR OFFICIALS OF SPECIAL-INTEREST ORGANISATIONS

1141 Senior officials of political-party organisations

1142 Senior officials of employers', workers' and other

economic-interest organisations

1143 Senior officials of humanitarian and other special-interest

organisations

12 CORPORATE MANAGERS (This group is intended to include

persons who - as directors, chief executives or department

managers - manage enterprises or organisations, or

departments, requiring a total of three or more managers.)

121 DIRECTORS AND CHIEF EXECUTIVES

1210 Directors and chief executives

122 PRODUCTION AND OPERATIONS DEPARTMENT MANAGERS

1221 Production and operations department managers in

agriculture, hunting, forestry and fishing

1222 Production and operations department managers in

manufacturing

1223 Production and operations department managers in  
construction

1224 Production and operations department managers in wholesale  
and retail trade

1225 Production and operations department managers in  
restaurants and hotels

1226 Production and operations department managers in transport,  
storage and communications

1227 Production and operations department managers in business  
services

1228 Production and operations department managers in personal  
care, cleaning and related services

1229 Production and operations department managers not elsewhere  
classified

#### 123 OTHER DEPARTMENT MANAGERS

1231 Finance and administration department managers

1232 Personnel and industrial relations department managers

1233 Sales and marketing department managers

1234 Advertising and public relations department managers

1235 Supply and distribution department managers

1236 Computing services department managers

1237 Research and development department managers

1239 Other department managers not elsewhere classified

#### 13 GENERAL MANAGERS (This group is intended to include persons

who manage enterprises, or in some cases organisations, on

their own behalf, or on behalf of the proprietor, with some

non-managerial help and the assistance of no more than one

2121 Mathematicians and related professionals

2122 Statisticians

## 213 COMPUTING PROFESSIONALS

2131 Computer systems designers and analysts

2132 Computer programmers

2139 Computing professionals not elsewhere classified

## 214 ARCHITECTS, ENGINEERS AND RELATED PROFESSIONALS

2141 Architects, town and traffic planners

2142 Civil engineers

2143 Electrical engineers

2144 Electronics and telecommunications engineers

2145 Mechanical engineers

2146 Chemical engineers

2147 Mining engineers, metallurgists and related professionals

2148 Cartographers and surveyors

2149 Architects, engineers and related professionals not  
elsewhere classified

## 22 LIFE SCIENCE AND HEALTH PROFESSIONALS

### 221 LIFE SCIENCE PROFESSIONALS

2211 Biologists, botanists, zoologists and related professionals

2212 Pharmacologists, pathologists and related professionals

2213 Agronomists and related professionals

### 222 HEALTH PROFESSIONALS (except nursing)

2221 Medical doctors

2222 Dentists

2223 Veterinarians

2224 Pharmacists

other manager who should also be classified in this sub-major group as, in most cases, the tasks will be broader than those of a specialised manager in a larger enterprise or organisation. Non-managerial staff should be classified according to their specific tasks.

### 131 GENERAL MANAGERS

1311 General managers in agriculture, hunting, forestry/ and fishing

1312 General managers in manufacturing

1313 General managers in construction

1314 General managers in wholesale and retail trade

1315 General managers of restaurants and hotels

1316 General managers in transport, storage and communications

1317 General managers of business services

1318 General managers in personal care, cleaning and related services

1319 General managers not elsewhere classified

### MAJOR GROUP 2

#### PROFESSIONALS

### 21 PHYSICAL, MATHEMATICAL AND ENGINEERING SCIENCE

#### PROFESSIONALS

### 211 PHYSICISTS, CHEMISTS AND RELATED PROFESSIONALS

2111 Physicists and astronomers

2112 Meteorologists

2113 Chemists

2114 Geologists and geophysicists

### 212 MATHEMATICIANS, STATISTICIANS AND RELATED PROFESSIONALS

2229 Health professionals (except nursing) not elsewhere  
classified

## 223 NURSING AND MIDWIFERY PROFESSIONALS

2230 Nursing and midwifery professionals

## 23 TEACHING PROFESSIONALS

231 COLLEGE, UNIVERSITY AND HIGHER EDUCATION TEACHING  
PROFESSIONALS

2310 College, university and higher education teaching  
professionals

## 232 SECONDARY EDUCATION TEACHING PROFESSIONALS

2320 Secondary education teaching professionals

## 233 PRIMARY AND PRE-PRIMARY EDUCATION TEACHING PROFESSIONALS

2331 Primary education teaching professionals

2332 Pre-primary education teaching professionals

## 234 SPECIAL EDUCATION TEACHING PROFESSIONALS

2340 Special education teaching professionals

## 235 OTHER TEACHING PROFESSIONALS

2351 Education methods specialists

2352 School inspectors

2359 Other teaching professionals not elsewhere classified

## 24 OTHER PROFESSIONALS

## 241 BUSINESS PROFESSIONALS

2411 Accountants

2412 Personnel and careers professionals

2419 Business professionals not elsewhere classified

## 242 LEGAL PROFESSIONALS

2421 Lawyers

2422 Judges

2429 Legal professionals not elsewhere classified

243 ARCHIVISTS, LIBRARIANS AND RELATED INFORMATION

PROFESSIONALS

2431 Archivists and curators

2432 Librarians and related information professionals

244 SOCIAL SCIENCE AND RELATED PROFESSIONALS

2441 Economists

2442 Sociologists, anthropologists and related professionals

2443 Philosophers, historians and political scientists

2444 Philologists, translators and interpreters

2445 Psychologists

2446 Social work professionals

245 WRITERS AND CREATIVE OR PERFORMING ARTISTS

2451 Authors, journalists and other writers

2452 Sculptors, painters and related artists

2453 Composers, musicians and singers

2454 Choreographers and dancers

2455 Film, stage and related actors and directors

246 RELIGIOUS PROFESSIONALS

2460 Religious professionals

MAJOR GROUP 3

TECHNICIANS AND ASSOCIATE PROFESSIONALS

31 PHYSICAL AND ENGINEERING SCIENCE ASSOCIATE PROFESSIONALS

311 PHYSICAL AND ENGINEERING SCIENCE TECHNICIANS

3111 Chemical and physical science technicians

3112 Civil engineering technicians

3113 Electrical engineering technicians

3114 Electronics and telecommunications engineering technicians

3115 Mechanical engineering technicians

3116 Chemical engineering technicians

3117 Mining and metallurgical technicians

3118 Draughtspersons

3119 Physical and engineering science technicians not elsewhere  
classified

## 312 COMPUTER ASSOCIATE PROFESSIONALS

3121 Computer assistants

3122 Computer equipment operators

3123 Industrial robot controllers

## 313 OPTICAL AND ELECTRONIC EQUIPMENT OPERATORS

3131 Photographers and image and sound recording equipment  
operators

3132 Broadcasting and telecommunications equipment operators

3133 Medical equipment operators

3139 Optical and electronic equipment operators not elsewhere  
classified

## 314 SHIP AND AIRCRAFT CONTROLLERS AND TECHNICIANS

3141 Ships' engineers

3142 Ships' deck officers and pilots

3143 Aircraft pilots and related associate professionals

3144 Air traffic controllers

3145 Air traffic safety technicians

## 315 SAFETY AND QUALITY INSPECTORS

3151 Building and fire inspectors



3152 Safety, health and quality inspectors

32 LIFE SCIENCE AND HEALTH ASSOCIATE PROFESSIONALS

321 LIFE SCIENCE TECHNICIANS AND RELATED ASSOCIATE  
PROFESSIONALS

3211 Life science technicians

3212 Agronomy and forestry technicians

3213 Farming and forestry advisers

322 MODERN HEALTH ASSOCIATE PROFESSIONALS (except nursing)

3221 Medical assistants

3222 Sanitarians

3223 Dieticians and nutritionists

3224 Optometrists and opticians

3225 Dental assistants

3226 Physiotherapists and related associate professionals

3227 Veterinary assistants

3228 Pharmaceutical assistants

3229 Modern health associate professionals (except nursing) not  
elsewhere classified

323 NURSING AND MIDWIFERY ASSOCIATE PROFESSIONALS

3231 Nursing associate professionals

3232 Midwifery associate professionals

324 TRADITIONAL MEDICINE PRACTITIONERS AND FAITH HEALERS

3241 Traditional medicine practitioners

3242 Faith healers

33 TEACHING ASSOCIATE PROFESSIONALS

331 PRIMARY EDUCATION TEACHING ASSOCIATE PROFESSIONALS

3310 Primary education teaching associate professionals

**332 PRE-PRIMARY EDUCATION TEACHING ASSOCIATE PROFESSIONALS**

3320 Pre-primary education teaching associate professionals

**333 SPECIAL EDUCATION TEACHING ASSOCIATE PROFESSIONALS**

3330 Special education teaching associate professionals

**334 OTHER TEACHING ASSOCIATE PROFESSIONALS**

3340 Other teaching associate professionals

**34 OTHER ASSOCIATE PROFESSIONALS****341 FINANCE AND SALES ASSOCIATE PROFESSIONALS**

3411 Securities and finance dealers and brokers

3412 Insurance representatives

3413 Estate agents

3414 Travel consultants and organisers

3415 Technical and commercial sales representatives

3416 Buyers

3417 Appraisers, valuers and auctioneers

3419 Finance and sales associate professionals not elsewhere

classified

**342 BUSINESS SERVICES AGENTS AND TRADE BROKERS**

3421 Trade brokers

3422 Clearing and forwarding agents

3423 Employment agents and labour contractors

3429 Business services agents and trade brokers not elsewhere

classified

**343 ADMINISTRATIVE ASSOCIATE PROFESSIONALS**

3431 Administrative secretaries and related associate

professionals

3432 Legal and related business associate professionals

3433 Bookkeepers

3434 Statistical, mathematical and related associate  
professionals

3439 Administrative associate professionals not elsewhere  
classified

#### 344 CUSTOMS, TAX AND RELATED GOVERNMENT ASSOCIATE PROFESSIONALS

3441 Customs and border inspectors

3442 Government tax and excise officials

3443 Government social benefits officials

3444 Government licensing officials

3449 Customs, tax and related government associate professionals  
not elsewhere classified

#### 345 POLICE INSPECTORS AND DETECTIVES

3450 Police inspectors and detectives

#### 346 SOCIAL WORK ASSOCIATE PROFESSIONALS

3460 Social work associate professionals

#### 347 ARTISTIC, ENTERTAINMENT AND SPORTS ASSOCIATE PROFESSIONALS

3471 Decorators and commercial designers

3472 Radio, television and other announcers

3473 Street, night-club and related musicians, singers and  
dancers

3474 Clowns, magicians, acrobats and related associate  
professionals

3475 Athletes, sportspersons and related associate professionals

#### 348 RELIGIOUS ASSOCIATE PROFESSIONALS

3480 Religious associate professionals

#### MAJOR GROUP 4

## CLERKS

## 41 OFFICE CLERKS

## 411 SECRETARIES AND KEYBOARD-OPERATING CLERKS

4111 Stenographers and typists

4112 Word-processor and related operators

4113 Data entry operators

4114 Calculating-machine operators

4115 Secretaries

## 412 NUMERICAL CLERKS

4121 Accounting and bookkeeping clerks

4122 Statistical and finance clerks

## 413 MATERIAL-RECORDING AND TRANSPORT CLERKS

4131 Stock clerks

4132 Production clerks

4133 Transport clerks

## 414 LIBRARY, MAIL AND RELATED CLERKS

4141 Library and filing clerks

4142 Mail carriers and sorting clerks

4143 Coding, proof-reading and related clerks

4144 Scribes and related workers

## 419 OTHER OFFICE CLERKS

4190 Other office clerks

## 42 CUSTOMER SERVICES CLERKS

## 421 CASHIERS, TELLERS AND RELATED CLERKS

4211 Cashiers and ticket clerks

4212 Tellers and other counter clerks

4213 Bookmakers and croupiers

4214 Pawnbrokers and money-lenders

4215 Debt-collectors and related workers

422 CLIENT INFORMATION CLERKS

4221 Travel agency and related clerks

4222 Receptionists and information clerks

4223 Telephone switchboard operators

MAJOR GROUP 5

SERVICE WORKERS AND SHOP AND MARKET SALES WORKERS

51 PERSONAL AND PROTECTIVE SERVICES WORKERS

511 TRAVEL ATTENDANTS AND RELATED WORKERS

5111 Travel attendants and travel stewards

5112 Transport conductors

5113 Travel guides

512 HOUSEKEEPING AND RESTAURANT SERVICES WORKERS

5121 Housekeepers and related workers

5122 Cooks

5123 Waiters, waitresses and bartenders

513 PERSONAL CARE AND RELATED WORKERS

5131 Child-care workers

5132 Institution-based personal care workers

5133 Home-based personal care workers

5139 Personal care and related workers not elsewhere classified

514 OTHER PERSONAL SERVICES WORKERS

5141 Hairdressers, barbers, beauticians and related workers

5142 Companions and valets

5143 Undertakers and embalmers

5149 Other personal services workers not elsewhere classified

## 515 ASTROLOGERS, FORTUNE-TELLERS AND RELATED WORKERS

5151 Astrologers and related workers

5152 Fortune-tellers, palmists and related workers

## 516 PROTECTIVE SERVICES WORKERS

5161 Fire-fighters

5162 Police officers

5163 Prison guards

5169 Protective services workers not elsewhere classified

## 52 MODELS, SALESPERSONS AND DEMONSTRATORS

## 521 FASHION AND OTHER MODELS

5210 Fashion and other models

## 522 SHOP SALESPERSONS AND DEMONSTRATORS

5220 Shop salespersons and demonstrators

## 523 STALL AND MARKET SALESPERSONS

5230 Stall and market salespersons

## MAJOR GROUP 6

## SKILLED AGRICULTURAL AND FISHERY WORKERS

## 61 MARKET-ORIENTED SKILLED AGRICULTURAL AND FISHERY WORKERS

## 611 MARKET GARDENERS AND CROP GROWERS

6111 Field crop and vegetable growers

6112 Tree and shrub crop growers

6113 Gardeners, horticultural and nursery growers

6114 Mixed-crop growers

## 612 MARKET-ORIENTED ANIMAL PRODUCERS AND RELATED WORKERS

6121 Dairy and livestock producers

6122 Poultry producers

6123 Apiarists and sericulturists

6124 Mixed-animal producers

6129 Market-oriented animal producers and related workers not  
elsewhere classified

613 MARKET-ORIENTED CROP AND ANIMAL PRODUCERS

6130 Market-oriented crop and animal producers

614 FORESTRY AND RELATED WORKERS

6141 Forestry workers and loggers

6142 Charcoal burners and related workers

615 FISHERY WORKERS, HUNTERS AND TRAPPERS

6151 Aquatic-life cultivation workers

6152 Inland and coastal waters fishery workers

6153 Deep-sea fishery workers

6154 Hunters and trappers

62 SUBSISTENCE AGRICULTURAL AND FISHERY WORKERS

621 SUBSISTENCE AGRICULTURAL AND FISHERY WORKERS

6210 Subsistence agricultural and fishery workers

MAJOR GROUP 7

CRAFT AND RELATED TRADES WORKERS

71 EXTRACTION AND BUILDING TRADES WORKERS

711 MINERS, SHOTFIRERS, STONE CUTTERS AND CARVERS

7111 Miners and quarry workers

7112 Shotfirers and blasters

7113 Stone splitters, cutters and carvers

712 BUILDING FRAME AND RELATED TRADES WORKERS

7121 Builders, traditional materials

7122 Bricklayers and stonemasons

7123 Concrete placers, concrete finishers and related workers

7124 Carpenters and joiners

7129 Building frame and related trades workers not elsewhere

classified

713 BUILDING FINISHERS AND RELATED TRADES WORKERS

7131 Roofers

7132 Floor layers and tile setters

7133 Plasterers

7134 Insulation workers

7135 Glaziers

7136 Plumbers and pipe fitters

7137 Building and related electricians

714 PAINTERS, BUILDING STRUCTURE CLEANERS AND RELATED TRADES

WORKERS

7141 Painters and related workers

7142 Varnishers and related painters

7143 Building structure cleaners

72 METAL, MACHINERY AND RELATED TRADES WORKERS

721 METAL MOULDERS, WELDERS, SHEET-METAL WORKERS, STRUCTURAL-  
METAL PREPARERS, AND RELATED TRADES WORKERS

7211 Metal moulders and coremakers

7212 Welders and flamecutters

7213 Sheet metal workers

7214 Structural-metal preparers and erectors

7215 Riggers and cable splicers

7216 Underwater workers

722 BLACKSMITHS, TOOL-MAKERS AND RELATED TRADES WORKERS

7221 Blacksmiths, hammer-smiths and forging-press workers



7222 Tool-makers and related workers

7223 Machine-tool setters and setter-operators

7224 Metal wheel-grinders, polishers and tool sharpeners

723 MACHINERY MECHANICS AND FITTERS

7231 Motor vehicle mechanics and fitters

7232 Aircraft engine mechanics and fitters

7233 Agricultural- or industrial-machinery mechanics and fitters

724 ELECTRICAL AND ELECTRONIC EQUIPMENT MECHANICS AND FITTERS

7241 Electrical mechanics and fitters

7242 Electronics fitters

7243 Electronics mechanics and servicers

7244 Telegraph and telephone installers and servicers

7245 Electrical line installers, repairers and cable jointers

73 PRECISION, HANDICRAFT, PRINTING AND RELATED TRADES WORKERS

731 PRECISION WORKERS IN METAL AND RELATED MATERIALS

7311 Precision-instrument makers and repairers

7312 Musical instrument makers and tuners

7313 Jewellery and precious-metal workers

732 POTTERS, GLASS-MAKERS AND RELATED TRADES WORKERS

7321 Abrasive wheel formers, potters and related workers

7322 Glass makers, cutters, grinders and finishers

7323 Glass engravers and etchers

7324 Glass, ceramics and related decorative painters

733 HANDICRAFT WORKERS IN WOOD, TEXTILE, LEATHER AND RELATED MATERIALS

7331 Handicraft workers in wood and related materials

7332 Handicraft workers in textile, leather and related

materials

#### 734 PRINTING AND RELATED TRADES WORKERS

7341 Compositors, typesetters and related workers

7342 Stereotypers and electrotypers

7343 Printing engravers and etchers

7344 Photographic and related workers

7345 Bookbinders and related workers

7346 Silk-screen, block and textile printers

#### 74 OTHER CRAFT AND RELATED TRADES WORKERS

#### 741 FOOD PROCESSING AND RELATED TRADES WORKERS

7411 Butchers, fishmongers and related food preparers

7412 Bakers, pastry-cooks and confectionery makers

7413 Dairy-products makers

7414 Fruit, vegetable and related preservers

7415 Food and beverage tasters and graders

7416 Tobacco preparers and tobacco products makers

#### 742 WOOD TREATERS, CABINET-MAKERS AND RELATED TRADES WORKERS

7421 Wood treaters

7422 Cabinet makers and related workers

7423 Woodworking machine setters and setter-operators

7424 Basketry weavers, brush makers and related workers

#### 743 TEXTILE, GARMENT AND RELATED TRADES WORKERS

7431 Fibre preparers

7432 Weavers, knitters and related workers

7433 Tailors, dressmakers and hatters

7434 Furriers and related workers

7435 Textile, leather and related pattern-makers and cutters

7436 Sewers, embroiderers and related workers

7437 Upholsterers and related workers

#### 744 PELT, LEATHER AND SHOEMAKING TRADES WORKERS

7441 Pelt dressers, tanners and fellmongers

7442 Shoe-makers and related workers

### MAJOR GROUP 8

#### PLANT AND MACHINE OPERATORS AND ASSEMBLERS

##### 81 STATIONARY-PLANT AND RELATED OPERATORS

##### 811 MINING- AND MINERAL-PROCESSING-PLANT OPERATORS

8111 Mining-plant operators

8112 Mineral-ore- and stone-processing-plant operators

8113 Well drillers and borers and related workers

##### 812 METAL-PROCESSING-PLANT OPERATORS

8121 Ore and metal furnace operators

8122 Metal melters, casters and rolling-mill operators

8123 Metal-heat-treating-plant operators

8124 Metal drawers and extruders

##### 813 GLASS, CERAMICS AND RELATED PLANT OPERATORS

8131 Glass and ceramics kiln and related machine operators

8139 Glass, ceramics and related plant operators not elsewhere

classified

##### 814 WOOD-PROCESSING- AND PAPERMAKING-PLANT OPERATORS

8141 Wood-processing-plant operators

8142 Paper-pulp plant operators

8143 Papermaking-plant operators

##### 815 CHEMICAL-PROCESSING-PLANT OPERATORS

8151 Crushing-, grinding- and chemical-mixing-machinery

operators

8152 Chemical-heat-treating-plant operators

8153 Chemical-filtering- and separating-equipment operators

8154 Chemical-still and reactor operators (except petroleum and  
natural gas)

8155 Petroleum- and natural-gas-refining-plant operators

8159 Chemical-processing-plant operators not elsewhere  
classified

## 816 POWER-PRODUCTION AND RELATED PLANT OPERATORS

8161 Power-production plant operators

8162 Steam-engine and boiler operators

8163 Incinerator, water-treatment and related plant operators

## 817 AUTOMATED-ASSEMBLY-LINE AND INDUSTRIAL-ROBOT OPERATORS

8171 Automated-assembly-line operators

8172 Industrial-robot operators

## 82 MACHINE OPERATORS AND ASSEMBLERS

### 821 METAL- AND MINERAL-PRODUCTS MACHINE OPERATORS

8211 Machine-tool operators

8212 Cement and other mineral products machine operators

### 822 CHEMICAL-PRODUCTS MACHINE OPERATORS

8221 Pharmaceutical- and toiletry-products machine operators

8222 Ammunition- and explosive-products machine operators

8223 Metal finishing-, plating- and coating-machine operators

8224 Photographic-products machine operators

8229 Chemical-products machine operators not elsewhere

classified

### 823 RUBBER- AND PLASTIC-PRODUCTS MACHINE OPERATORS

8231 Rubber-products machine operators

8232 Plastic-products machine operators

824 WOOD-PRODUCTS MACHINE OPERATORS

8240 Wood-products machine operators

825 PRINTING-, BINDING- AND PAPER-PRODUCTS MACHINE OPERATORS

8251 Printing-machine operators

8252 Bookbinding-machine operators

8253 Paper-products machine operators

826 TEXTILE-, FUR- AND LEATHER-PRODUCTS MACHINE OPERATORS

8261 Fibre-preparing-, spinning- and winding-machine operators

8262 Weaving- and knitting-machine operators

8263 Sewing-machine operators

8264 Bleaching-, dyeing- and cleaning-machine operators

8265 Fur- and leather-preparing-machine operators

8266 Shoemaking- and related machine operators

8269 Textile-, fur- and leather-products machine operators not  
elsewhere classified

827 FOOD AND RELATED PRODUCTS MACHINE OPERATORS

8271 Meat- and fish-processing-machine operators

8272 Dairy-products machine operators

8273 Grain- and spice-milling-machine operators

8274 Baked-goods, cereal and chocolate-products machine  
operators

8275 Fruit-, vegetable- and nut-processing-machine operators

8276 Sugar production machine operators

8277 Tea-, coffee-, and cocoa-processing-machine operators

8278 Brewers, wine and other beverage machine operators

8279 Tobacco production machine operators

828 ASSEMBLERS

8281 Mechanical-machinery assemblers

8282 Electrical-equipment assemblers

8283 Electronic-equipment assemblers

8284 Metal-, rubber- and plastic-products assemblers

8285 Wood and related products assemblers

8286 Paperboard, textile and related products assemblers

829 OTHER MACHINE OPERATORS AND ASSEMBLERS

8290 Other machine operators and assemblers

83 DRIVERS AND MOBILE-PLANT OPERATORS

831 LOCOMOTIVE-ENGINE DRIVERS AND RELATED WORKERS

8311 Locomotive-engine drivers

8312 Railway brakemen, signallers and shunters

832 MOTOR-VEHICLE DRIVERS

8321 Motor-cycle drivers

8322 Car, taxi and van drivers

8323 Bus and tram drivers

8324 Heavy-truck and lorry drivers

833 AGRICULTURAL AND OTHER MOBILE-PLANT OPERATORS

8331 Motorised farm and forestry plant operators

8332 Earth-moving- and related plant operators

8333 Crane, hoist and related plant operators

8334 Lifting-truck operators

834 SHIPS' DECK CREWS AND RELATED WORKERS

8340 Ships' deck crews and related workers

MAJOR GROUP 9

## ELEMENTARY OCCUPATIONS

## 91 SALES AND SERVICES ELEMENTARY OCCUPATIONS

## 911 STREET VENDORS AND RELATED WORKERS

9111 Street food vendors

9112 Street vendors, non-food products

9113 Door-to-door and telephone salespersons

## 912 SHOE CLEANING AND OTHER STREET SERVICES ELEMENTARY

## OCCUPATIONS

9120 Shoe cleaning and other street services elementary

occupations

## 913 DOMESTIC AND RELATED HELPERS, CLEANERS AND LAUNDERERS

9131 Domestic helpers and cleaners

9132 Helpers and cleaners in offices, hotels and other

establishments

9133 Hand-laundrerers and pressers

## 914 BUILDING CARETAKERS, WINDOW AND RELATED CLEANERS

9141 Building caretakers

9142 Vehicle, window and related cleaners

## 915 MESSENGERS, PORTERS, DOORKEEPERS AND RELATED WORKERS

9151 Messengers, package and luggage porters and deliverers

9152 Doorkeepers, watchpersons and related workers

9153 Vending-machine money collectors, meter readers and related

workers

## 916 GARBAGE COLLECTORS AND RELATED LABOURERS

9161 Garbage collectors

9162 Sweepers and related labourers

## 92 AGRICULTURAL, FISHERY AND RELATED LABOURERS

## 921 AGRICULTURAL, FISHERY AND RELATED LABOURERS

9211 Farm-hands and labourers

9212 Forestry labourers

9213 Fishery, hunting and trapping labourers

93 LABOURERS IN MINING, CONSTRUCTION, MANUFACTURING AND  
TRANSPORT

## 931 MINING AND CONSTRUCTION LABOURERS

9311 Mining and quarrying labourers

9312 Construction and maintenance labourers: roads, dams and  
similar constructions

9313 Building construction labourers

## 932 MANUFACTURING LABOURERS

9321 Assembling labourers

9322 Hand packers and other manufacturing labourers

## 933 TRANSPORT LABOURERS AND FREIGHT HANDLERS

9331 Hand or pedal vehicle drivers

9332 Drivers of animal-drawn vehicles and machinery

9333 Freight handlers

## MAJOR GROUP 0

## ARMED FORCES

## 01 ARMED FORCES

## 011 ARMED FORCES

0110 Armed forces

1. See ILO: Bulletin of Labour Statistics, October Inquiry Results, 1985 and 1986, on occupational wages and hours of work and on retail food prices (Geneva, 1987), Appendix I, List of industries and occupations.

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Updated by AL on 23 February 2000.

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International Labour Organization

Statistics

# INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS

ISCO-88

## MAJOR, SUBMAJOR AND MINOR GROUPS

Major group 1: Legislators, senior officials and managers

11 Legislators and senior officials

111 Legislators

112 Senior government officials

113 Traditional chiefs and heads of villages

114 Senior officials of special interest organizations

12 Corporate managers

121 Directors and chief executives

122 Production and operations department managers

123 Other departmental managers

13 General managers

131 General managers

Major group 2: Professionals

21 Physical, mathematical and engineering science professionals

211 Physicists, chemists and related professionals

212 Mathematicians, statisticians and related professionals

213 Computing professionals

214 Architects, engineers and related professionals

22 Life science and health professionals

221 Life science professionals

222 Health professionals (except nursing)

223 Nursing and midwifery professionals

23 Teaching professionals

231 College, university and higher education teaching professionals

232 Secondary education teaching professionals

233 Primary and pre-primary education teaching professionals

234 Special education teaching professionals

235 Other teaching professionals

24 Other professionals

241 Business professionals

242 Legal professionals

243 Archivists, librarians and related information professionals

244 Social sciences and related professionals

245 Writers and creative or performing artists

246 Religious professionals

Major group 3: Technicians and associate professionals

31 Physical and engineering science associate professionals

311 Physical and engineering science technicians

312 Computer associate professionals

313 Optical and electronic equipment operators

314 Ship and aircraft controllers and technicians

315 Safety and quality inspectors

32 Life science and health associate professionals

321 Life science technicians and related associate professionals

322 Modern health associate professionals (except nursing)

323 Nursing and midwifery associate professionals

324 Traditional medicine practitioners and faith-healers

33 Teaching associate professionals

331 Primary education teaching associate professionals

332 Pre-primary education teaching associate professionals

333 Special education teaching associate professionals

334 Other teaching associate professionals

34 Other associate professionals

341 Finance and sales associate professionals

342 Business services agents and trade brokers

343 Administrative associate professionals

344 Customs, tax and related government associate professionals

345 Police inspectors and detectives

346 Social work associate professionals

347 Artistic, entertainment and sports associate professionals

348 Religious associate professionals

Major group 4: Clerks

41 Office clerks

411 Secretaries and keyboard-operating clerks

412 Numerical clerks

413 Material-recording and transport clerks

414 Library, mail and related clerks

419 Other office clerks

42 Customer service clerks

421 Cashiers, tellers and related clerks

422 Client information clerks

Major group 5: Service workers and shop and market sales workers

51 Personal and protective services workers

511 Travel attendants and related workers

512 Housekeeping and restaurant services workers

513 Personal care and related workers

514 Other personal service workers

515 Astrologers, fortune-tellers and related workers

516 Protective services workers

52 Models, salespersons and demonstrators

521 Fashion and other models

522 Shop salespersons and demonstrators

523 Stall and market salespersons

Major group 6: Skilled agricultural and fishery workers

61 Market-oriented skilled agricultural and fishery workers

611 Market gardeners and crop growers

612 Market-oriented animal producers and related workers

613 Market-oriented crop and animal producers

614 Forestry and related workers

615 Fishery workers, hunters and trappers

62 Subsistence agricultural and fishery workers

621 Subsistence agricultural and fishery workers

Major group 7: Craft and related trades workers

71 Extraction and building trade workers

711 Miners, shot-firers, stonecutters and carvers

712 Building frame and related trades workers

713 Building finishers and related trades workers

714 Painters, building structure cleaners and related trade workers

72 Metal, machinery and related trades workers

721 Metal moulders, welders, sheet-metalworkers, structural-metal preparers and related trades workers

722 Blacksmiths, toolmakers and related trades workers

723 Machinery mechanics and fitters

724 Electrical and electronic equipment mechanics and fitters

73 Precision, handicraft, printing and related trades workers

731 Precision workers in metal and related materials

732 Potters, glass-makers and related trades workers

733 Handicraft workers in wood, textile, leather and related materials

734 Printing and related trades workers

74 Other craft and related trades workers

741 Food processing and related trades workers

742 Wood treaters, cabinet-makers and related trades workers

743 Textile, garment and related trades workers

744 Felt, leather and shoemaking trades workers

Major group 8: Plant and machine operators and assemblers

81 Stationary plant and related operators

811 Mining and mineral-processing plant operators

812 Metal-processing plant operators

813 Glass, ceramics and related plant operators

814 Wood processing and papermaking plant operators

815 Chemical processing plant operators

816 Power production and related plant operators

817 Automated assembly-line and industrial robot operators

82 Machine operators and assemblers

821 Metal and mineral products machine operators

822 Chemical products machine operators

823 Rubber and plastic products machine operators

824 Wood products machine operators

825 Printing, binding and paper products machine operators

826 Textile, fur and leather products machine operators

827 Food and related products machine operators

828 Assemblers

829 Other machine operators and assemblers

83 Drivers and mobile plant operators

831 Locomotive engine-drivers and related workers

832 Motor vehicle drivers

833 Agricultural and other mobile plant operators

834 Ships' deck crews and related workers

Major group 9: Elementary occupations

91 Sales and services elementary occupations

911 Street vendors and related workers

912 Shoe cleaning and other street services' elementary occupations

913 Domestic and related helpers, cleaners and launderers

914 Building caretakers, window and related cleaners

915 Messengers, porters, doorkeepers and related workers

916 Garbage collectors and related labourers

92 Agricultural, fishery and related labourers

921 Agricultural, fishery and related labourers

93 Labourers in mining, construction, manufacturing and transport

931 Mining and construction labourers

932 Manufacturing labourers

933 Transport labourers and freight handlers

Major group 0: Armed forces

01 Armed forces

011 Armed forces

 See also the [University of Warwick's website](#).

Updated by AL. Approved by AMO. Last update: May 18, 2000.

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International Labour Organization

Statistics

## RESOLUTION CONCERNING THE REVISION OF THE INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS (October-November 1987)

The Fourteenth International Conference of Labour Statisticians,

.....

Recalling the recommendation of the Eleventh International Conference of Labour Statisticians endorsing the revised International Standard Classification of Occupations, 1968 (ISCO-68); and

Recalling the recommendation of the Thirteenth International Conference of Labour Statisticians concerning the revision of ISCO-68;

Adopts, this sixth day of November 1987, the following Resolution, which replaces that adopted in 1966:

1. The occupational classification system of major, sub-major, minor and unit groups shown in the annex to this Resolution is endorsed by the Conference and is designated the International Standard Classification of Occupations, 1988 (ISCO-88).
2. ISCO classifies jobs past, present or future. It classifies persons through their actual and potential relation with jobs. Jobs are classified with respect to the type of work performed or to be performed. The basic criteria used to define the system of major, sub-major, minor and unit groups are the "skill" level and "skill specialisation" required to carry out the tasks and duties of the occupations, with separate major groups for "Legislators, senior officials and managers" and for "Armed forces".
3. In collecting and processing statistics classified by occupation (e.g. for use in fields such as labour market analysis; education planning; manpower planning; occupational health analysis; wages analysis, etc.), each country should ensure the possibility of conversion into the ISCO-88 system to facilitate international use of occupational information.
4. Countries should make available to and discuss with the ILO information about how the group, aggregates thereof or subdivisions thereof defined in the classification(s) used for national purposes can best be related to the major, sub-major, minor and unit groups of ISCO-88.
5. The Conference notes that the Bureau of Statistics has provided:
  - (a) draft definitions of the major, sub-major, minor and unit groups;
  - (b) definitions and descriptions of certain occupational categories which are used in its October Inquiry<sup>(1)</sup>.
6. The Conference notes that the Bureau of Statistics will provide:
  - (a) guidelines on how to collect and process occupational information in statistical censuses and surveys, and in administrative records to ensure high and uniform quality of occupational statistics;
  - (b) a Manual on how to develop and use national occupational classifications and dictionaries.

### ANNEX

## MAJOR, SUB-MAJOR, MINOR AND UNIT GROUP TITLES

## MAJOR GROUP 1

## LEGISLATORS, SENIOR OFFICIALS AND MANAGERS

## 11 LEGISLATORS AND SENIOR OFFICIALS

## 111 LEGISLATORS

## 1110 Legislators

## 112 SENIOR GOVERNMENT OFFICIALS

## 1120 Senior government officials

## 113 TRADITIONAL CHIEFS AND HEADS OF VILLAGES

## 1130 Traditional chiefs and heads of villages

## 114 SENIOR OFFICIALS OF SPECIAL-INTEREST ORGANISATIONS

## 1141 Senior officials of political-party organisations

## 1142 Senior officials of employers', workers' and other

economic-interest organisations

## 1143 Senior officials of humanitarian and other special-interest

organisations

## 12 CORPORATE MANAGERS (This group is intended to include

persons who - as directors, chief executives or department

managers - manage enterprises or organisations, or

departments, requiring a total of three or more managers.)

## 121 DIRECTORS AND CHIEF EXECUTIVES

## 1210 Directors and chief executives

## 122 PRODUCTION AND OPERATIONS DEPARTMENT MANAGERS

## 1221 Production and operations department managers in

agriculture, hunting, forestry and fishing

## 1222 Production and operations department managers in

manufacturing

1223 Production and operations department managers in

construction

1224 Production and operations department managers in wholesale

and retail trade

1225 Production and operations department managers in

restaurants and hotels

1226 Production and operations department managers in transport,

storage and communications

1227 Production and operations department managers in business

services

1228 Production and operations department managers in personal

care, cleaning and related services

1229 Production and operations department managers not elsewhere

classified

### 123 OTHER DEPARTMENT MANAGERS

1231 Finance and administration department managers

1232 Personnel and industrial relations department managers

1233 Sales and marketing department managers

1234 Advertising and public relations department managers

1235 Supply and distribution department managers

1236 Computing services department managers

1237 Research and development department managers

1239 Other department managers not elsewhere classified

### 13 GENERAL MANAGERS (This group is intended to include persons

who manage enterprises, or in some cases organisations, on

their own behalf, or on behalf of the proprietor, with some

non-managerial help and the assistance of no more than one

other manager who should also be classified in this sub-major group as, in most cases, the tasks will be broader than those of a specialised manager in a larger enterprise or organisation. Non-managerial staff should be classified according to their specific tasks.

### 131 GENERAL MANAGERS

1311 General managers in agriculture, hunting, forestry/ and fishing

1312 General managers in manufacturing

1313 General managers in construction

1314 General managers in wholesale and retail trade

1315 General managers of restaurants and hotels

1316 General managers in transport, storage and communications

1317 General managers of business services

1318 General managers in personal care, cleaning and related services

1319 General managers not elsewhere classified

## MAJOR GROUP 2

### PROFESSIONALS

#### 21 PHYSICAL, MATHEMATICAL AND ENGINEERING SCIENCE

### PROFESSIONALS

#### 211 PHYSICISTS, CHEMISTS AND RELATED PROFESSIONALS

2111 Physicists and astronomers

2112 Meteorologists

2113 Chemists

2114 Geologists and geophysicists

#### 212 MATHEMATICIANS, STATISTICIANS AND RELATED PROFESSIONALS

2121 Mathematicians and related professionals

2122 Statisticians

## 213 COMPUTING PROFESSIONALS

2131 Computer systems designers and analysts

2132 Computer programmers

2139 Computing professionals not elsewhere classified

## 214 ARCHITECTS, ENGINEERS AND RELATED PROFESSIONALS

2141 Architects, town and traffic planners

2142 Civil engineers

2143 Electrical engineers

2144 Electronics and telecommunications engineers

2145 Mechanical engineers

2146 Chemical engineers

2147 Mining engineers, metallurgists and related professionals

2148 Cartographers and surveyors

2149 Architects, engineers and related professionals not  
elsewhere classified

## 22 LIFE SCIENCE AND HEALTH PROFESSIONALS

### 221 LIFE SCIENCE PROFESSIONALS

2211 Biologists, botanists, zoologists and related professionals

2212 Pharmacologists, pathologists and related professionals

2213 Agronomists and related professionals

### 222 HEALTH PROFESSIONALS (except nursing)

2221 Medical doctors

2222 Dentists

2223 Veterinarians

2224 Pharmacists

2121 Mathematicians and related professionals

2122 Statisticians

### 213 COMPUTING PROFESSIONALS

2131 Computer systems designers and analysts

2132 Computer programmers

2139 Computing professionals not elsewhere classified

### 214 ARCHITECTS, ENGINEERS AND RELATED PROFESSIONALS

2141 Architects, town and traffic planners

2142 Civil engineers

2143 Electrical engineers

2144 Electronics and telecommunications engineers

2145 Mechanical engineers

2146 Chemical engineers

2147 Mining engineers, metallurgists and related professionals

2148 Cartographers and surveyors

2149 Architects, engineers and related professionals not

elsewhere classified

### 22 LIFE SCIENCE AND HEALTH PROFESSIONALS

#### 221 LIFE SCIENCE PROFESSIONALS

2211 Biologists, botanists, zoologists and related professionals

2212 Pharmacologists, pathologists and related professionals

2213 Agronomists and related professionals

#### 222 HEALTH PROFESSIONALS (except nursing)

2221 Medical doctors

2222 Dentists

2223 Veterinarians

2224 Pharmacists

2229 Health professionals (except nursing) not elsewhere

classified

223 NURSING AND MIDWIFERY PROFESSIONALS

2230 Nursing and midwifery professionals

23 TEACHING PROFESSIONALS

231 COLLEGE, UNIVERSITY AND HIGHER EDUCATION TEACHING

PROFESSIONALS

2310 College, university and higher education teaching

professionals

232 SECONDARY EDUCATION TEACHING PROFESSIONALS

2320 Secondary education teaching professionals

233 PRIMARY AND PRE-PRIMARY EDUCATION TEACHING PROFESSIONALS

2331 Primary education teaching professionals

2332 Pre-primary education teaching professionals

234 SPECIAL EDUCATION TEACHING PROFESSIONALS

2340 Special education teaching professionals

235 OTHER TEACHING PROFESSIONALS

2351 Education methods specialists

2352 School inspectors

2359 Other teaching professionals not elsewhere classified

24 OTHER PROFESSIONALS

241 BUSINESS PROFESSIONALS

2411 Accountants

2412 Personnel and careers professionals

2419 Business professionals not elsewhere classified

242 LEGAL PROFESSIONALS

2421 Lawyers

2422 Judges

2429 Legal professionals not elsewhere classified

243 ARCHIVISTS, LIBRARIANS AND RELATED INFORMATION

PROFESSIONALS

2431 Archivists and curators

2432 Librarians and related information professionals

244 SOCIAL SCIENCE AND RELATED PROFESSIONALS

2441 Economists

2442 Sociologists, anthropologists and related professionals

2443 Philosophers, historians and political scientists

2444 Philologists, translators and interpreters

2445 Psychologists

2446 Social work professionals

245 WRITERS AND CREATIVE OR PERFORMING ARTISTS

2451 Authors, journalists and other writers

2452 Sculptors, painters and related artists

2453 Composers, musicians and singers

2454 Choreographers and dancers

2455 Film, stage and related actors and directors

246 RELIGIOUS PROFESSIONALS

2460 Religious professionals

MAJOR GROUP 3

TECHNICIANS AND ASSOCIATE PROFESSIONALS

31 PHYSICAL AND ENGINEERING SCIENCE ASSOCIATE PROFESSIONALS

311 PHYSICAL AND ENGINEERING SCIENCE TECHNICIANS

3111 Chemical and physical science technicians

3112 Civil engineering technicians



3113 Electrical engineering technicians

3114 Electronics and telecommunications engineering technicians

3115 Mechanical engineering technicians

3116 Chemical engineering technicians

3117 Mining and metallurgical technicians

3118 Draughtspersons

3119 Physical and engineering science technicians not elsewhere

classified

### 312 COMPUTER ASSOCIATE PROFESSIONALS

3121 Computer assistants

3122 Computer equipment operators

3123 Industrial robot controllers

### 313 OPTICAL AND ELECTRONIC EQUIPMENT OPERATORS

3131 Photographers and image and sound recording equipment  
operators

3132 Broadcasting and telecommunications equipment operators

3133 Medical equipment operators

3139 Optical and electronic equipment operators not elsewhere  
classified

### 314 SHIP AND AIRCRAFT CONTROLLERS AND TECHNICIANS

3141 Ships' engineers

3142 Ships' deck officers and pilots

3143 Aircraft pilots and related associate professionals

3144 Air traffic controllers

3145 Air traffic safety technicians

### 315 SAFETY AND QUALITY INSPECTORS

3151 Building and fire inspectors

3152 Safety, health and quality inspectors

32 LIFE SCIENCE AND HEALTH ASSOCIATE PROFESSIONALS

321 LIFE SCIENCE TECHNICIANS AND RELATED ASSOCIATE  
PROFESSIONALS

3211 Life science technicians

3212 Agronomy and forestry technicians

3213 Farming and forestry advisers

322 MODERN HEALTH ASSOCIATE PROFESSIONALS (except nursing)

3221 Medical assistants

3222 Sanitarians

3223 Dieticians and nutritionists

3224 Optometrists and opticians

3225 Dental assistants

3226 Physiotherapists and related associate professionals

3227 Veterinary assistants

3228 Pharmaceutical assistants

3229 Modern health associate professionals (except nursing) not  
elsewhere classified

323 NURSING AND MIDWIFERY ASSOCIATE PROFESSIONALS

3231 Nursing associate professionals

3232 Midwifery associate professionals

324 TRADITIONAL MEDICINE PRACTITIONERS AND FAITH HEALERS

3241 Traditional medicine practitioners

3242 Faith healers

33 TEACHING ASSOCIATE PROFESSIONALS

331 PRIMARY EDUCATION TEACHING ASSOCIATE PROFESSIONALS

3310 Primary education teaching associate professionals

332 PRE-PRIMARY EDUCATION TEACHING ASSOCIATE PROFESSIONALS

3320 Pre-primary education teaching associate professionals

333 SPECIAL EDUCATION TEACHING ASSOCIATE PROFESSIONALS

3330 Special education teaching associate professionals

334 OTHER TEACHING ASSOCIATE PROFESSIONALS

3340 Other teaching associate professionals

34 OTHER ASSOCIATE PROFESSIONALS

341 FINANCE AND SALES ASSOCIATE PROFESSIONALS

3411 Securities and finance dealers and brokers

3412 Insurance representatives

3413 Estate agents

3414 Travel consultants and organisers

3415 Technical and commercial sales representatives

3416 Buyers

3417 Appraisers, valuers and auctioneers

3419 Finance and sales associate professionals not elsewhere

classified

342 BUSINESS SERVICES AGENTS AND TRADE BROKERS

3421 Trade brokers

3422 Clearing and forwarding agents

3423 Employment agents and labour contractors

3429 Business services agents and trade brokers not elsewhere

classified

343 ADMINISTRATIVE ASSOCIATE PROFESSIONALS

3431 Administrative secretaries and related associate

professionals

3432 Legal and related business associate professionals

3433 Bookkeepers

3434 Statistical, mathematical and related associate  
professionals

3439 Administrative associate professionals not elsewhere  
classified

#### 344 CUSTOMS, TAX AND RELATED GOVERNMENT ASSOCIATE PROFESSIONALS

3441 Customs and border inspectors

3442 Government tax and excise officials

3443 Government social benefits officials

3444 Government licensing officials

3449 Customs, tax and related government associate professionals  
not elsewhere classified

#### 345 POLICE INSPECTORS AND DETECTIVES

3450 Police inspectors and detectives

#### 346 SOCIAL WORK ASSOCIATE PROFESSIONALS

3460 Social work associate professionals

#### 347 ARTISTIC, ENTERTAINMENT AND SPORTS ASSOCIATE PROFESSIONALS

3471 Decorators and commercial designers

3472 Radio, television and other announcers

3473 Street, night-club and related musicians, singers and  
dancers

3474 Clowns, magicians, acrobats and related associate  
professionals

3475 Athletes, sportspersons and related associate professionals

#### 348 RELIGIOUS ASSOCIATE PROFESSIONALS

3480 Religious associate professionals

#### MAJOR GROUP 4

## CLERKS

## 41 OFFICE CLERKS

## 411 SECRETARIES AND KEYBOARD-OPERATING CLERKS

4111 Stenographers and typists

4112 Word-processor and related operators

4113 Data entry operators

4114 Calculating-machine operators

4115 Secretaries

## 412 NUMERICAL CLERKS

4121 Accounting and bookkeeping clerks

4122 Statistical and finance clerks

## 413 MATERIAL-RECORDING AND TRANSPORT CLERKS

4131 Stock clerks

4132 Production clerks

4133 Transport clerks

## 414 LIBRARY, MAIL AND RELATED CLERKS

4141 Library and filing clerks

4142 Mail carriers and sorting clerks

4143 Coding, proof-reading and related clerks

4144 Scribes and related workers

## 419 OTHER OFFICE CLERKS

4190 Other office clerks

## 42 CUSTOMER SERVICES CLERKS

## 421 CASHIERS, TELLERS AND RELATED CLERKS

4211 Cashiers and ticket clerks

4212 Tellers and other counter clerks

4213 Bookmakers and croupiers

4214 Pawnbrokers and money-lenders

4215 Debt-collectors and related workers

422 CLIENT INFORMATION CLERKS

4221 Travel agency and related clerks

4222 Receptionists and information clerks

4223 Telephone switchboard operators

MAJOR GROUP 5

SERVICE WORKERS AND SHOP AND MARKET SALES WORKERS

51 PERSONAL AND PROTECTIVE SERVICES WORKERS

511 TRAVEL ATTENDANTS AND RELATED WORKERS

5111 Travel attendants and travel stewards

5112 Transport conductors

5113 Travel guides

512 HOUSEKEEPING AND RESTAURANT SERVICES WORKERS

5121 Housekeepers and related workers

5122 Cooks

5123 Waiters, waitresses and bartenders

513 PERSONAL CARE AND RELATED WORKERS

5131 Child-care workers

5132 Institution-based personal care workers

5133 Home-based personal care workers

5139 Personal care and related workers not elsewhere classified

514 OTHER PERSONAL SERVICES WORKERS

5141 Hairdressers, barbers, beauticians and related workers

5142 Companions and valets

5143 Undertakers and embalmers

5149 Other personal services workers not elsewhere classified

## 515 ASTROLOGERS, FORTUNE-TELLERS AND RELATED WORKERS

5151 Astrologers and related workers

5152 Fortune-tellers, palmists and related workers

## 516 PROTECTIVE SERVICES WORKERS

5161 Fire-fighters

5162 Police officers

5163 Prison guards

5169 Protective services workers not elsewhere classified

## 52 MODELS, SALESPERSONS AND DEMONSTRATORS

## 521 FASHION AND OTHER MODELS

5210 Fashion and other models

## 522 SHOP SALESPERSONS AND DEMONSTRATORS

5220 Shop salespersons and demonstrators

## 523 STALL AND MARKET SALESPERSONS

5230 Stall and market salespersons

## MAJOR GROUP 6

## SKILLED AGRICULTURAL AND FISHERY WORKERS

## 61 MARKET-ORIENTED SKILLED AGRICULTURAL AND FISHERY WORKERS

## 611 MARKET GARDENERS AND CROP GROWERS

6111 Field crop and vegetable growers

6112 Tree and shrub crop growers

6113 Gardeners, horticultural and nursery growers

6114 Mixed-crop growers

## 612 MARKET-ORIENTED ANIMAL PRODUCERS AND RELATED WORKERS

6121 Dairy and livestock producers

6122 Poultry producers

6123 Apiarists and sericulturists

6124 Mixed-animal producers

6129 Market-oriented animal producers and related workers not  
elsewhere classified

613 MARKET-ORIENTED CROP AND ANIMAL PRODUCERS

6130 Market-oriented crop and animal producers

614 FORESTRY AND RELATED WORKERS

6141 Forestry workers and loggers

6142 Charcoal burners and related workers

615 FISHERY WORKERS, HUNTERS AND TRAPPERS

6151 Aquatic-life cultivation workers

6152 Inland and coastal waters fishery workers

6153 Deep-sea fishery workers

6154 Hunters and trappers

62 SUBSISTENCE AGRICULTURAL AND FISHERY WORKERS

621 SUBSISTENCE AGRICULTURAL AND FISHERY WORKERS

6210 Subsistence agricultural and fishery workers

MAJOR GROUP 7

CRAFT AND RELATED TRADES WORKERS

71 EXTRACTION AND BUILDING TRADES WORKERS

711 MINERS, SHOTFIRERS, STONE CUTTERS AND CARVERS

7111 Miners and quarry workers

7112 Shotfirers and blasters

7113 Stone splitters, cutters and carvers

712 BUILDING FRAME AND RELATED TRADES WORKERS

7121 Builders, traditional materials

7122 Bricklayers and stonemasons

7123 Concrete placers, concrete finishers and related workers



7124 Carpenters and joiners

7129 Building frame and related trades workers not elsewhere  
classified

713 BUILDING FINISHERS AND RELATED TRADES WORKERS

7131 Roofers

7132 Floor layers and tile setters

7133 Plasterers

7134 Insulation workers

7135 Glaziers

7136 Plumbers and pipe fitters

7137 Building and related electricians

714 PAINTERS, BUILDING STRUCTURE CLEANERS AND RELATED TRADES  
WORKERS

7141 Painters and related workers

7142 Varnishers and related painters

7143 Building structure cleaners

72 METAL, MACHINERY AND RELATED TRADES WORKERS

721 METAL MOULDERS, WELDERS, SHEET-METAL WORKERS, STRUCTURAL-  
METAL PREPARERS, AND RELATED TRADES WORKERS

7211 Metal moulders and coremakers

7212 Welders and flamecutters

7213 Sheet metal workers

7214 Structural-metal preparers and erectors

7215 Riggers and cable splicers

7216 Underwater workers

722 BLACKSMITHS, TOOL-MAKERS AND RELATED TRADES WORKERS

7221 Blacksmiths, hammer-smiths and forging-press workers

7222 Tool-makers and related workers

7223 Machine-tool setters and setter-operators

7224 Metal wheel-grinders, polishers and tool sharpeners

723 MACHINERY MECHANICS AND FITTERS

7231 Motor vehicle mechanics and fitters

7232 Aircraft engine mechanics and fitters

7233 Agricultural- or industrial-machinery mechanics and fitters

724 ELECTRICAL AND ELECTRONIC EQUIPMENT MECHANICS AND FITTERS

7241 Electrical mechanics and fitters

7242 Electronics fitters

7243 Electronics mechanics and servicers

7244 Telegraph and telephone installers and servicers

7245 Electrical line installers, repairers and cable jointers

73 PRECISION, HANDICRAFT, PRINTING AND RELATED TRADES WORKERS

731 PRECISION WORKERS IN METAL AND RELATED MATERIALS

7311 Precision-instrument makers and repairers

7312 Musical instrument makers and tuners

7313 Jewellery and precious-metal workers

732 POTTERS, GLASS-MAKERS AND RELATED TRADES WORKERS

7321 Abrasive wheel formers, potters and related workers

7322 Glass makers, cutters, grinders and finishers

7323 Glass engravers and etchers

7324 Glass, ceramics and related decorative painters

733 HANDICRAFT WORKERS IN WOOD, TEXTILE, LEATHER AND RELATED MATERIALS

7331 Handicraft workers in wood and related materials

7332 Handicraft workers in textile, leather and related

materials

#### 734 PRINTING AND RELATED TRADES WORKERS

7341 Compositors, typesetters and related workers

7342 Stereotypers and electrotypers

7343 Printing engravers and etchers

7344 Photographic and related workers

7345 Bookbinders and related workers

7346 Silk-screen, block and textile printers

#### 74 OTHER CRAFT AND RELATED TRADES WORKERS

##### 741 FOOD PROCESSING AND RELATED TRADES WORKERS

7411 Butchers, fishmongers and related food preparers

7412 Bakers, pastry-cooks and confectionery makers

7413 Dairy-products makers

7414 Fruit, vegetable and related preservers

7415 Food and beverage tasters and graders

7416 Tobacco preparers and tobacco products makers

##### 742 WOOD TREATERS, CABINET-MAKERS AND RELATED TRADES WORKERS

7421 Wood treaters

7422 Cabinet makers and related workers

7423 Woodworking machine setters and setter-operators

7424 Basketry weavers, brush makers and related workers

##### 743 TEXTILE, GARMENT AND RELATED TRADES WORKERS

7431 Fibre preparers

7432 Weavers, knitters and related workers

7433 Tailors, dressmakers and hatters

7434 Furriers and related workers

7435 Textile, leather and related pattern-makers and cutters

7436 Sewers, embroiderers and related workers

7437 Upholsterers and related workers

744 PELT, LEATHER AND SHOEMAKING TRADES WORKERS

7441 Pelt dressers, tanners and fellmongers

7442 Shoe-makers and related workers

MAJOR GROUP 8

PLANT AND MACHINE OPERATORS AND ASSEMBLERS

81 STATIONARY-PLANT AND RELATED OPERATORS

811 MINING- AND MINERAL-PROCESSING-PLANT OPERATORS

8111 Mining-plant operators

8112 Mineral-ore- and stone-processing-plant operators

8113 Well drillers and borers and related workers

812 METAL-PROCESSING-PLANT OPERATORS

8121 Ore and metal furnace operators

8122 Metal melters, casters and rolling-mill operators

8123 Metal-heat-treating-plant operators

8124 Metal drawers and extruders

813 GLASS, CERAMICS AND RELATED PLANT OPERATORS

8131 Glass and ceramics kiln and related machine operators

8139 Glass, ceramics and related plant operators not elsewhere

classified

814 WOOD-PROCESSING- AND PAPERMAKING-PLANT OPERATORS

8141 Wood-processing-plant operators

8142 Paper-pulp plant operators

8143 Papermaking-plant operators

815 CHEMICAL-PROCESSING-PLANT OPERATORS

8151 Crushing-, grinding- and chemical-mixing-machinery

operators

8152 Chemical-heat-treating-plant operators

8153 Chemical-filtering- and separating-equipment operators

8154 Chemical-still and reactor operators (except petroleum and  
natural gas)

8155 Petroleum- and natural-gas-refining-plant operators

8159 Chemical-processing-plant operators not elsewhere  
classified

816 POWER-PRODUCTION AND RELATED PLANT OPERATORS

8161 Power-production plant operators

8162 Steam-engine and boiler operators

8163 Incinerator, water-treatment and related plant operators

817 AUTOMATED-ASSEMBLY-LINE AND INDUSTRIAL-ROBOT OPERATORS

8171 Automated-assembly-line operators

8172 Industrial-robot operators

82 MACHINE OPERATORS AND ASSEMBLERS

821 METAL- AND MINERAL-PRODUCTS MACHINE OPERATORS

8211 Machine-tool operators

8212 Cement and other mineral products machine operators

822 CHEMICAL-PRODUCTS MACHINE OPERATORS

8221 Pharmaceutical- and toiletry-products machine operators

8222 Ammunition- and explosive-products machine operators

8223 Metal finishing-, plating- and coating-machine operators

8224 Photographic-products machine operators

8229 Chemical-products machine operators not elsewhere

classified

823 RUBBER- AND PLASTIC-PRODUCTS MACHINE OPERATORS

8231 Rubber-products machine operators

8232 Plastic-products machine operators

824 WOOD-PRODUCTS MACHINE OPERATORS

8240 Wood-products machine operators

825 PRINTING-, BINDING- AND PAPER-PRODUCTS MACHINE OPERATORS

8251 Printing-machine operators

8252 Bookbinding-machine operators

8253 Paper-products machine operators

826 TEXTILE-, FUR- AND LEATHER-PRODUCTS MACHINE OPERATORS

8261 Fibre-preparing-, spinning- and winding-machine operators

8262 Weaving- and knitting-machine operators

8263 Sewing-machine operators

8264 Bleaching-, dyeing- and cleaning-machine operators

8265 Fur- and leather-preparing-machine operators

8266 Shoemaking- and related machine operators

8269 Textile-, fur- and leather-products machine operators not

elsewhere classified

827 FOOD AND RELATED PRODUCTS MACHINE OPERATORS

8271 Meat- and fish-processing-machine operators

8272 Dairy-products machine operators

8273 Grain- and spice-milling-machine operators

8274 Baked-goods, cereal and chocolate-products machine

operators

8275 Fruit-, vegetable- and nut-processing-machine operators

8276 Sugar production machine operators

8277 Tea-, coffee-, and cocoa-processing-machine operators

8278 Brewers, wine and other beverage machine operators

8279 Tobacco production machine operators

828 ASSEMBLERS

8281 Mechanical-machinery assemblers

8282 Electrical-equipment assemblers

8283 Electronic-equipment assemblers

8284 Metal-, rubber- and plastic-products assemblers

8285 Wood and related products assemblers

8286 Paperboard, textile and related products assemblers

829 OTHER MACHINE OPERATORS AND ASSEMBLERS

8290 Other machine operators and assemblers

83 DRIVERS AND MOBILE-PLANT OPERATORS

831 LOCOMOTIVE-ENGINE DRIVERS AND RELATED WORKERS

8311 Locomotive-engine drivers

8312 Railway brakemen, signallers and shunters

832 MOTOR-VEHICLE DRIVERS

8321 Motor-cycle drivers

8322 Car, taxi and van drivers

8323 Bus and tram drivers

8324 Heavy-truck and lorry drivers

833 AGRICULTURAL AND OTHER MOBILE-PLANT OPERATORS

8331 Motorised farm and forestry plant operators

8332 Earth-moving- and related plant operators

8333 Crane, hoist and related plant operators

8334 Lifting-truck operators

834 SHIPS' DECK CREWS AND RELATED WORKERS

8340 Ships' deck crews and related workers

MAJOR GROUP 9

## ELEMENTARY OCCUPATIONS

## 91 SALES AND SERVICES ELEMENTARY OCCUPATIONS

## 911 STREET VENDORS AND RELATED WORKERS

9111 Street food vendors

9112 Street vendors, non-food products

9113 Door-to-door and telephone salespersons

912 SHOE CLEANING AND OTHER STREET SERVICES ELEMENTARY  
OCCUPATIONS9120 Shoe cleaning and other street services elementary  
occupations

## 913 DOMESTIC AND RELATED HELPERS, CLEANERS AND LAUNDERERS

9131 Domestic helpers and cleaners

9132 Helpers and cleaners in offices, hotels and other  
establishments

9133 Hand-laundrers and pressers

## 914 BUILDING CARETAKERS, WINDOW AND RELATED CLEANERS

9141 Building caretakers

9142 Vehicle, window and related cleaners

## 915 MESSENGERS, PORTERS, DOORKEEPERS AND RELATED WORKERS

9151 Messengers, package and luggage porters and deliverers

9152 Doorkeepers, watchpersons and related workers

9153 Vending-machine money collectors, meter readers and related  
workers

## 916 GARBAGE COLLECTORS AND RELATED LABOURERS

9161 Garbage collectors

9162 Sweepers and related labourers

## 92 AGRICULTURAL, FISHERY AND RELATED LABOURERS



## 921 AGRICULTURAL, FISHERY AND RELATED LABOURERS

9211 Farm-hands and labourers

9212 Forestry labourers

9213 Fishery, hunting and trapping labourers

93 LABOURERS IN MINING, CONSTRUCTION, MANUFACTURING AND  
TRANSPORT

## 931 MINING AND CONSTRUCTION LABOURERS

9311 Mining and quarrying labourers

9312 Construction and maintenance labourers: roads, dams and  
similar constructions

9313 Building construction labourers

## 932 MANUFACTURING LABOURERS

9321 Assembling labourers

9322 Hand packers and other manufacturing labourers

## 933 TRANSPORT LABOURERS AND FREIGHT HANDLERS

9331 Hand or pedal vehicle drivers

9332 Drivers of animal-drawn vehicles and machinery

9333 Freight handlers

## MAJOR GROUP 0

## ARMED FORCES

## 01 ARMED FORCES

## 011 ARMED FORCES

## 0110 Armed forces

1. See ILO: Bulletin of Labour Statistics, October Inquiry Results, 1985 and 1986, on occupational wages and hours of work and on retail food prices (Geneva, 1987), Appendix I, List of industries and occupations.

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Updated by AL on 23 February 2000.

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