

# FIELDS OF RESEARCH

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## DIVISIONS

- 30 AGRICULTURAL, VETERINARY AND FOOD SCIENCES
- 31 BIOLOGICAL SCIENCES
- 32 BIOMEDICAL AND CLINICAL SCIENCES
- 33 BUILT ENVIRONMENT AND DESIGN
- 34 CHEMICAL SCIENCES
- 35 COMMERCE, MANAGEMENT, TOURISM AND SERVICES
- 36 CREATIVE ARTS AND WRITING
- 37 EARTH SCIENCES
- 38 ECONOMICS
- 39 EDUCATION
- 40 ENGINEERING
- 41 ENVIRONMENTAL SCIENCES
- 42 HEALTH SCIENCES
- 43 HISTORY, HERITAGE AND ARCHAEOLOGY
- 44 HUMAN SOCIETY
- 45 INDIGENOUS STUDIES
- 46 INFORMATION AND COMPUTING SCIENCES
- 47 LANGUAGE, COMMUNICATION AND CULTURE
- 48 LAW AND LEGAL STUDIES
- 49 MATHEMATICAL SCIENCES
- 50 PHILOSOPHY AND RELIGIOUS STUDIES
- 51 PHYSICAL SCIENCES
- 52 PSYCHOLOGY

## **30 AGRICULTURAL, VETERINARY AND FOOD SCIENCES**

### **3001 Agricultural biotechnology**

- 300101 Agricultural biotechnology diagnostics (incl. biosensors)
- 300102 Agricultural marine biotechnology
- 300103 Agricultural molecular engineering of nucleic acids and proteins
- 300104 Genetically modified animals
- 300105 Genetically modified field crops and pasture
- 300106 Genetically modified horticulture plants
- 300107 Genetically modified trees
- 300108 Livestock cloning
- 300109 Non-genetically modified uses of biotechnology
- 300110 Transgenesis
- 300199 Agricultural biotechnology not elsewhere classified

### **3002 Agriculture, land and farm management**

- 300201 Agricultural hydrology
- 300202 Agricultural land management
- 300203 Agricultural land planning
- 300204 Agricultural management of nutrients
- 300205 Agricultural production systems simulation
- 300206 Agricultural spatial analysis and modelling
- 300207 Agricultural systems analysis and modelling
- 300208 Farm management, rural management and agribusiness
- 300209 Germplasm management
- 300210 Sustainable agricultural development
- 300299 Agriculture, land and farm management not elsewhere classified

### **3003 Animal production**

- 300301 Animal growth and development
- 300302 Animal management
- 300303 Animal nutrition
- 300304 Animal protection (incl. pests and pathogens)
- 300305 Animal reproduction and breeding
- 300306 Animal welfare
- 300307 Environmental studies in animal production

300399 Animal production not elsewhere classified

**3004 Crop and pasture production**

300401 Agrochemicals and biocides (incl. application)

300402 Agro-ecosystem function and prediction

300403 Agronomy

300404 Crop and pasture biochemistry and physiology

300405 Crop and pasture biomass and bioproducts

300406 Crop and pasture improvement (incl. selection and breeding)

300407 Crop and pasture nutrition

300408 Crop and pasture post harvest technologies (incl. transportation and storage)

300409 Crop and pasture protection (incl. pests, diseases and weeds)

300410 Crop and pasture waste water use

300411 Fertilisers (incl. application)

300412 Organic and low chemical input crop production

300413 Pollination biology and systems

300499 Crop and pasture production not elsewhere classified

**3005 Fisheries sciences**

300501 Aquaculture

300502 Aquaculture and fisheries stock assessment

300503 Fish pests and diseases

300504 Fish physiology and genetics

300505 Fisheries management

300506 Post-harvest fisheries technologies (incl. transportation)

300599 Fisheries sciences not elsewhere classified

**3006 Food sciences**

300601 Beverage chemistry and beverage sensory science

300602 Food chemistry and food sensory science

300603 Food nutritional balance

300604 Food packaging, preservation and processing

300605 Food safety, traceability, certification and authenticity

300606 Food sustainability

300607 Food technology

300699 Food sciences not elsewhere classified

**3007 Forestry sciences**

- 300701 Agroforestry
- 300702 Forest biodiversity
- 300703 Forest ecosystems
- 300704 Forest health and pathology
- 300705 Forestry biomass and bioproducts
- 300706 Forestry fire management
- 300707 Forestry management and environment
- 300708 Forestry product quality assessment
- 300709 Tree improvement (incl. selection and breeding)
- 300710 Tree nutrition and physiology
- 300711 Wood fibre processing
- 300712 Wood processing
- 300799 Forestry sciences not elsewhere classified

**3008 Horticultural production**

- 300801 Field organic and low chemical input horticulture
- 300802 Horticultural crop growth and development
- 300803 Horticultural crop improvement (incl. selection and breeding)
- 300804 Horticultural crop protection (incl. pests, diseases and weeds)
- 300805 Oenology and viticulture
- 300806 Post harvest horticultural technologies (incl. transportation and storage)
- 300899 Horticultural production not elsewhere classified

**3009 Veterinary sciences**

- 300901 Veterinary anaesthesiology and intensive care
- 300902 Veterinary anatomy and physiology
- 300903 Veterinary bacteriology
- 300904 Veterinary diagnosis and diagnostics
- 300905 Veterinary epidemiology
- 300906 Veterinary immunology
- 300907 Veterinary medicine (excl. urology)
- 300908 Veterinary mycology
- 300909 Veterinary parasitology
- 300910 Veterinary pathology

300911 Veterinary pharmacology

300912 Veterinary surgery

300913 Veterinary urology

300914 Veterinary virology

300999 Veterinary sciences not elsewhere classified

**3099 Other agricultural, veterinary and food sciences**

309999 Other agricultural, veterinary and food sciences not elsewhere classified

**31 BIOLOGICAL SCIENCES**

**3101 Biochemistry and cell biology**

310101 Analytical biochemistry

310102 Cell development, proliferation and death

310103 Cell metabolism

310104 Cell neurochemistry

310105 Cellular interactions (incl. adhesion, matrix, cell wall)

310106 Enzymes

310107 Glycobiology

310108 Protein trafficking

310109 Proteomics and intermolecular interactions (excl. medical proteomics)

310110 Receptors and membrane biology

310111 Signal transduction

310112 Structural biology (incl. macromolecular modelling)

310113 Synthetic biology

310114 Systems biology

310199 Biochemistry and cell biology not elsewhere classified

**3102 Bioinformatics and computational biology**

310201 Bioinformatic methods development

310202 Biological network analysis

310203 Computational ecology and phylogenetics

310204 Genomics and transcriptomics

310205 Proteomics and metabolomics

310206 Sequence analysis

310207 Statistical and quantitative genetics

310208 Translational and applied bioinformatics

310299 Bioinformatics and computational biology not elsewhere classified

**3103 Ecology**

310301 Behavioural ecology

310302 Community ecology (excl. invasive species ecology)

310303 Ecological physiology

310304 Freshwater ecology

310305 Marine and estuarine ecology (incl. marine ichthyology)

310306 Palaeoecology

310307 Population ecology

310308 Terrestrial ecology

310399 Ecology not elsewhere classified

**3104 Evolutionary biology**

310401 Animal systematics and taxonomy

310402 Biogeography and phylogeography

310403 Biological adaptation

310404 Evolution of developmental systems

310405 Evolutionary ecology

310406 Evolutionary impacts of climate change

310407 Host-parasite interactions

310408 Life histories

310409 Microbial taxonomy

310410 Phylogeny and comparative analysis

310411 Plant and fungus systematics and taxonomy

310412 Speciation and extinction

310499 Evolutionary biology not elsewhere classified

**3105 Genetics**

310501 Anthropological genetics

310502 Cell and nuclear division

310503 Developmental genetics (incl. sex determination)

310504 Epigenetics (incl. genome methylation and epigenomics)

310505 Gene expression (incl. microarray and other genome-wide approaches)

310506 Gene mapping

310507 Genetic immunology

310508 Genome structure and regulation

310509 Genomics

310510 Molecular evolution

310511 Neurogenetics

310599 Genetics not elsewhere classified

**3106 Industrial biotechnology**

310601 Biocatalysis and enzyme technology

310602 Bioprocessing, bioproduction and bioproducts

310603 Fermentation

310604 Industrial biotechnology diagnostics (incl. biosensors)

310605 Industrial microbiology (incl. biofeedstocks)

310606 Industrial molecular engineering of nucleic acids and proteins

310607 Nanobiotechnology

310699 Industrial biotechnology not elsewhere classified

**3107 Microbiology**

310701 Bacteriology

310702 Infectious agents

310703 Microbial ecology

310704 Microbial genetics

310705 Mycology

310706 Virology

310799 Microbiology not elsewhere classified

**3108 Plant biology**

310801 Phycology (incl. marine grasses)

310802 Plant biochemistry

310803 Plant cell and molecular biology

310804 Plant developmental and reproductive biology

310805 Plant pathology

310806 Plant physiology

310899 Plant biology not elsewhere classified

**3109 Zoology**

310901 Animal behaviour

310902 Animal cell and molecular biology

310903 Animal developmental and reproductive biology  
310904 Animal diet and nutrition  
310905 Animal immunology  
310906 Animal neurobiology  
310907 Animal physiological ecology  
310908 Animal physiology - biophysics  
310909 Animal physiology - cell  
310910 Animal physiology - systems  
310911 Animal structure and function  
310912 Comparative physiology  
310913 Invertebrate biology  
310914 Vertebrate biology  
310999 Zoology not elsewhere classified

**3199 Other biological sciences**

319901 Forensic biology  
319902 Global change biology  
319999 Other biological sciences not elsewhere classified

**32 BIOMEDICAL AND CLINICAL SCIENCES**

**3201 Cardiovascular medicine and haematology**

320101 Cardiology (incl. cardiovascular diseases)  
320102 Haematology  
320103 Respiratory diseases  
320199 Cardiovascular medicine and haematology not elsewhere classified

**3202 Clinical sciences**

320201 Anaesthesiology  
320202 Clinical chemistry (incl. diagnostics)  
320203 Clinical microbiology  
320204 Clinimetrics  
320205 Dermatology  
320206 Diagnostic radiography  
320207 Emergency medicine  
320208 Endocrinology  
320209 Gastroenterology and hepatology



320210 Geriatrics and gerontology  
320211 Infectious diseases  
320212 Intensive care  
320213 Medical genetics (excl. cancer genetics)  
320214 Nephrology and urology  
320215 Nuclear medicine  
320216 Orthopaedics  
320217 Otorhinolaryngology  
320218 Pain  
320219 Paramedicine  
320220 Pathology (excl. oral pathology)  
320221 Psychiatry (incl. psychotherapy)  
320222 Radiology and organ imaging  
320223 Rheumatology and arthritis  
320224 Rural clinical health  
320225 Sports medicine  
320226 Surgery  
320227 Venereology  
320299 Clinical sciences not elsewhere classified

**3203 Dentistry**

320301 Craniofacial biology  
320302 Dental materials and equipment  
320303 Dental therapeutics, pharmacology and toxicology  
320304 Endodontics  
320305 Oral and maxillofacial surgery  
320306 Oral implantology  
320307 Oral medicine and pathology  
320308 Orthodontics and dentofacial orthopaedics  
320309 Paedodontics  
320310 Periodontics  
320311 Prosthodontics  
320312 Special needs dentistry  
320399 Dentistry not elsewhere classified

**3204 Immunology**

- 320401 Allergy
- 320402 Applied immunology (incl. antibody engineering, xenotransplantation and t-cell therapies)
- 320403 Autoimmunity
- 320404 Cellular immunology
- 320405 Humoural immunology and immunochemistry
- 320406 Immunogenetics (incl. genetic immunology)
- 320407 Innate immunity
- 320408 Transplantation immunology
- 320409 Tumour immunology
- 320499 Immunology not elsewhere classified

**3205 Medical biochemistry and metabolomics**

- 320501 Medical biochemistry - amino acids and metabolites
- 320502 Medical biochemistry - carbohydrates
- 320503 Medical biochemistry - inorganic elements and compounds
- 320504 Medical biochemistry - lipids
- 320505 Medical biochemistry - nucleic acids
- 320506 Medical biochemistry - proteins and peptides (incl. medical proteomics)
- 320507 Metabolic medicine
- 320599 Medical biochemistry and metabolomics not elsewhere classified

**3206 Medical biotechnology**

- 320601 Gene and molecular therapy
- 320602 Medical biotechnology diagnostics (incl. biosensors)
- 320603 Medical molecular engineering of nucleic acids and proteins
- 320604 Nanomedicine
- 320605 Nanotoxicology, health and safety
- 320606 Regenerative medicine (incl. stem cells)
- 320699 Medical biotechnology not elsewhere classified

**3207 Medical microbiology**

- 320701 Medical bacteriology
- 320702 Medical infection agents (incl. prions)
- 320703 Medical mycology
- 320704 Medical parasitology

320705 Medical virology  
320799 Medical microbiology not elsewhere classified

**3208 Medical physiology**

320801 Cell physiology  
320802 Human biophysics  
320803 Systems physiology  
320899 Medical physiology not elsewhere classified

**3209 Neurosciences**

320901 Autonomic nervous system  
320902 Cellular nervous system  
320903 Central nervous system  
320904 Computational neuroscience (incl. mathematical neuroscience and theoretical neuroscience)  
320905 Neurology and neuromuscular diseases  
320906 Peripheral nervous system  
320907 Sensory systems  
320999 Neurosciences not elsewhere classified

**3210 Nutrition and dietetics**

321001 Clinical nutrition  
321002 Food properties (incl. characteristics and health benefits)  
321003 Nutrigenomics and personalised nutrition  
321004 Nutritional science  
321005 Public health nutrition  
321006 Sport and exercise nutrition  
321099 Nutrition and dietetics not elsewhere classified

**3211 Oncology and carcinogenesis**

321101 Cancer cell biology  
321102 Cancer diagnosis  
321103 Cancer genetics  
321104 Cancer therapy (excl. chemotherapy and radiation therapy)  
321105 Chemotherapy  
321106 Haematological tumours  
321107 Liquid biopsies  
321108 Molecular targets

- 321109 Predictive and prognostic markers
- 321110 Radiation therapy
- 321111 Solid tumours
- 321199 Oncology and carcinogenesis not elsewhere classified

**3212 Ophthalmology and optometry**

- 321201 Ophthalmology
- 321202 Optical technology
- 321203 Optometry
- 321204 Vision science
- 321299 Ophthalmology and optometry not elsewhere classified

**3213 Paediatrics**

- 321301 Adolescent health
- 321302 Infant and child health
- 321303 Neonatology
- 321399 Paediatrics not elsewhere classified

**3214 Pharmacology and pharmaceutical sciences**

- 321401 Basic pharmacology
- 321402 Clinical pharmacology and therapeutics
- 321403 Clinical pharmacy and pharmacy practice
- 321404 Pharmaceutical delivery technologies
- 321405 Pharmaceutical sciences
- 321406 Pharmacogenomics
- 321407 Toxicology (incl. clinical toxicology)
- 321499 Pharmacology and pharmaceutical sciences not elsewhere classified

**3215 Reproductive medicine**

- 321501 Foetal development and medicine
- 321502 Obstetrics and gynaecology
- 321503 Reproduction
- 321599 Reproductive medicine not elsewhere classified

**3299 Other biomedical and clinical sciences**

- 329999 Other biomedical and clinical sciences not elsewhere classified

**33 BUILT ENVIRONMENT AND DESIGN**

**3301 Architecture**

330101 Architectural computing and visualisation methods

330102 Architectural design

330103 Architectural heritage and conservation

330104 Architectural history, theory and criticism

330105 Architectural science and technology

330106 Architecture for disaster relief

330107 Architecture management

330108 Interior design

330109 Landscape architecture

330110 Sustainable architecture

330199 Architecture not elsewhere classified

**3302 Building**

330201 Automation and technology in building and construction

330202 Building construction management and project planning

330203 Building industry studies

330204 Building information modelling and management

330205 Building organisational studies

330206 Building science, technologies and systems

330207 Quantity surveying

330299 Building not elsewhere classified

**3303 Design**

330301 Data visualisation and computational (incl. parametric and generative) design

330302 Design anthropology

330303 Design for disaster relief

330304 Design history, theory and criticism

330305 Design management

330306 Design practice and methods

330307 Ergonomics design

330308 Fire safety design

330309 Industrial and product design

330310 Interaction and experience design

330311 Models and simulations of design

- 330312 Service design
- 330313 Social design
- 330314 Sustainable design
- 330315 Textile and fashion design
- 330316 Visual communication design (incl. graphic design)
- 330399 Design not elsewhere classified

**3304 Urban and regional planning**

- 330401 Community planning
- 330402 History and theory of the built environment (excl. architecture)
- 330403 Housing markets, development and management
- 330404 Land use and environmental planning
- 330405 Public participation and community engagement
- 330406 Regional analysis and development
- 330407 Regulatory planning and development assessment
- 330408 Strategic, metropolitan and regional planning
- 330409 Transport planning
- 330410 Urban analysis and development
- 330411 Urban design
- 330412 Urban informatics
- 330413 Urban planning and health
- 330499 Urban and regional planning not elsewhere classified

**3399 Other built environment and design**

- 339999 Other built environment and design not elsewhere classified

**34 CHEMICAL SCIENCES**

**3401 Analytical chemistry**

- 340101 Analytical spectrometry
- 340102 Bioassays
- 340103 Electroanalytical chemistry
- 340104 Flow analysis
- 340105 Instrumental methods (excl. immunological and bioassay methods)
- 340106 Metabolomic chemistry
- 340107 Quality assurance, chemometrics, traceability and metrological chemistry
- 340108 Sensor technology (incl. chemical aspects)

340109 Separation science  
340199 Analytical chemistry not elsewhere classified

**3402 Inorganic chemistry**

340201 Bioinorganic chemistry  
340202 Crystallography  
340203 F-block chemistry  
340204 Inorganic green chemistry  
340205 Main group metal chemistry  
340206 Metal cluster chemistry  
340207 Metal organic frameworks  
340208 Non-metal chemistry  
340209 Organometallic chemistry  
340210 Solid state chemistry  
340211 Transition metal chemistry  
340299 Inorganic chemistry not elsewhere classified

**3403 Macromolecular and materials chemistry**

340301 Inorganic materials (incl. nanomaterials)  
340302 Macromolecular materials  
340303 Nanochemistry  
340304 Optical properties of materials  
340305 Physical properties of materials  
340306 Polymerisation mechanisms  
340307 Structure and dynamics of materials  
340308 Supramolecular chemistry  
340309 Theory and design of materials  
340399 Macromolecular and materials chemistry not elsewhere classified

**3404 Medicinal and biomolecular chemistry**

340401 Biologically active molecules  
340402 Biomolecular modelling and design  
340403 Characterisation of biological macromolecules  
340404 Cheminformatics and quantitative structure-activity relationships  
340405 Glycoconjugates  
340406 Molecular medicine

340407 Proteins and peptides  
340499 Medicinal and biomolecular chemistry not elsewhere classified

**3405 Organic chemistry**

340501 Free radical chemistry  
340502 Natural products and bioactive compounds  
340503 Organic chemical synthesis  
340504 Organic green chemistry  
340505 Physical organic chemistry  
340599 Organic chemistry not elsewhere classified

**3406 Physical chemistry**

340601 Catalysis and mechanisms of reactions  
340602 Chemical thermodynamics and energetics  
340603 Colloid and surface chemistry  
340604 Electrochemistry  
340605 Molecular imaging (incl. electron microscopy and neutron diffraction)  
340606 Photochemistry  
340607 Reaction kinetics and dynamics  
340608 Solution chemistry  
340609 Transport properties and non-equilibrium processes  
340699 Physical chemistry not elsewhere classified

**3407 Theoretical and computational chemistry**

340701 Computational chemistry  
340702 Radiation and matter  
340703 Statistical mechanics in chemistry  
340704 Theoretical quantum chemistry  
340799 Theoretical and computational chemistry not elsewhere classified

**3499 Other chemical sciences**

349901 Forensic chemistry  
349999 Other chemical sciences not elsewhere classified

**35 COMMERCE, MANAGEMENT, TOURISM AND SERVICES**



**3501 Accounting, auditing and accountability**

- 350101 Accounting theory and standards
- 350102 Auditing and accountability
- 350103 Financial accounting
- 350104 International accounting
- 350105 Management accounting
- 350106 Not-for-profit accounting and accountability
- 350107 Sustainability accounting and reporting
- 350108 Taxation accounting
- 350199 Accounting, auditing and accountability not elsewhere classified

**3502 Banking, finance and investment**

- 350201 Environment and climate finance
- 350202 Finance
- 350203 Financial econometrics
- 350204 Financial institutions (incl. banking)
- 350205 Household finance and financial literacy
- 350206 Insurance studies
- 350207 International finance
- 350208 Investment and risk management
- 350209 Not-for-profit finance and risk
- 350299 Banking, finance and investment not elsewhere classified

**3503 Business systems in context**

- 350301 Business analytics
- 350302 Business information management (incl. records, knowledge and intelligence)
- 350303 Business information systems
- 350304 Business systems in context
- 350305 Forensic intelligence
- 350306 Forensic science and management
- 350307 Technology management
- 350399 Business systems in context not elsewhere classified

**3504 Commercial services**

- 350401 Food and hospitality services
- 350402 Hospitality management

350403 Real estate and valuation services

350404 Retail

350405 Sport and leisure management

350499 Commercial services not elsewhere classified

**3505 Human resources and industrial relations**

350501 Business and labour history

350502 Employment equity and diversity

350503 Human resources management

350504 Industrial and employee relations

350505 Occupational and workplace health and safety

350506 Workforce planning

350507 Workplace wellbeing and quality of working life

350599 Human resources and industrial relations not elsewhere classified

**3506 Marketing**

350601 Consumer behaviour

350602 Consumer-oriented product or service development

350603 Industrial marketing

350604 Marketing communications

350605 Marketing management (incl. strategy and customer relations)

350606 Marketing research methodology

350607 Marketing technology

350608 Marketing theory

350609 Not-for-profit marketing

350610 Pricing (incl. consumer value estimation)

350611 Service marketing

350612 Social marketing

350699 Marketing not elsewhere classified

**3507 Strategy, management and organisational behaviour**

350701 Corporate governance

350702 Corporate social responsibility

350703 Disaster and emergency management

350704 Entrepreneurship

350705 Innovation management

350706 International business  
350707 Leadership  
350708 Not-for-profit business and management  
350709 Organisation and management theory  
350710 Organisational behaviour  
350711 Organisational planning and management  
350712 Production and operations management  
350713 Project management  
350714 Public sector organisation and management  
350715 Quality management  
350716 Small business organisation and management  
350717 Stakeholder engagement  
350718 Strategy  
350799 Strategy, management and organisational behaviour not elsewhere classified

**3508 Tourism**

350801 Impacts of tourism  
350802 Tourism forecasting  
350803 Tourism management  
350804 Tourism marketing  
350805 Tourism resource appraisal  
350806 Tourist behaviour and visitor experience  
350899 Tourism not elsewhere classified

**3509 Transportation, logistics and supply chains**

350901 Air transportation and freight services  
350902 Intelligent mobility  
350903 Logistics  
350904 Maritime transportation and freight services  
350905 Passenger needs  
350906 Public transport  
350907 Rail transportation and freight services  
350908 Road transportation and freight services  
350909 Supply chains  
350999 Transportation, logistics and supply chains not elsewhere classified

**3599 Other commerce, management, tourism and services**

359999 Other commerce, management, tourism and services not elsewhere classified

**36 CREATIVE ARTS AND WRITING**

**3601 Art history, theory and criticism**

360101 Art criticism

360102 Art history

360103 Art theory

360104 Visual cultures

360199 Art history, theory and criticism not elsewhere classified

**3602 Creative and professional writing**

360201 Creative writing (incl. scriptwriting)

360202 Digital writing

360203 Professional writing and journalism practice

360204 Site-based writing

360205 Technical writing

360299 Creative and professional writing not elsewhere classified

**3603 Music**

360301 Music cognition

360302 Music composition and improvisation

360303 Music education

360304 Music performance

360305 Music technology and recording

360306 Musicology and ethnomusicology

360399 Music not elsewhere classified

**3604 Performing arts**

360401 Applied theatre

360402 Dance and dance studies

360403 Drama, theatre and performance studies

360499 Performing arts not elsewhere classified

**3605 Screen and digital media**

360501 Cinema studies

360502 Computer gaming and animation

360503 Digital and electronic media art  
360504 Interactive media  
360505 Screen media  
360506 Visual effects  
360599 Screen and digital media not elsewhere classified

**3606 Visual arts**

360601 Crafts  
360602 Fine arts  
360603 Performance art  
360604 Photography, video and lens-based practice  
360699 Visual arts not elsewhere classified

**3699 Other creative arts and writing**

369999 Other creative arts and writing not elsewhere classified

**37 EARTH SCIENCES**

**3701 Atmospheric sciences**

370101 Adverse weather events  
370102 Air pollution processes and air quality measurement  
370103 Atmospheric aerosols  
370104 Atmospheric composition, chemistry and processes  
370105 Atmospheric dynamics  
370106 Atmospheric radiation  
370107 Cloud physics  
370108 Meteorology  
370109 Tropospheric and stratospheric physics  
370199 Atmospheric sciences not elsewhere classified

**3702 Climate change science**

370201 Climate change processes  
370202 Climatology  
370203 Greenhouse gas inventories and fluxes  
370299 Climate change science not elsewhere classified

**3703 Geochemistry**

370301 Exploration geochemistry

- 370302 Inorganic geochemistry
- 370303 Isotope geochemistry
- 370304 Organic geochemistry
- 370399 Geochemistry not elsewhere classified

**3704 Geoinformatics**

- 370401 Computational modelling and simulation in earth sciences
- 370402 Earth and space science informatics
- 370403 Geoscience data visualisation
- 370499 Geoinformatics not elsewhere classified

**3705 Geology**

- 370501 Biomineralisation
- 370502 Geochronology
- 370503 Igneous and metamorphic petrology
- 370504 Marine geoscience
- 370505 Mineralogy and crystallography
- 370506 Palaeontology (incl. palynology)
- 370507 Planetary geology
- 370508 Resource geoscience
- 370509 Sedimentology
- 370510 Stratigraphy (incl. biostratigraphy, sequence stratigraphy and basin analysis)
- 370511 Structural geology and tectonics
- 370512 Volcanology
- 370599 Geology not elsewhere classified

**3706 Geophysics**

- 370601 Applied geophysics
- 370602 Electrical and electromagnetic methods in geophysics
- 370603 Geodesy
- 370604 Geodynamics
- 370605 Geothermics and radiometrics
- 370606 Gravimetrics
- 370607 Magnetism and palaeomagnetism
- 370608 Petrophysics and rock mechanics
- 370609 Seismology and seismic exploration

370699 Geophysics not elsewhere classified

**3707 Hydrology**

370701 Contaminant hydrology

370702 Ecohydrology

370703 Groundwater hydrology

370704 Surface water hydrology

370705 Urban hydrology

370799 Hydrology not elsewhere classified

**3708 Oceanography**

370801 Biological oceanography

370802 Chemical oceanography

370803 Physical oceanography

370899 Oceanography not elsewhere classified

**3709 Physical geography and environmental geoscience**

370901 Geomorphology and earth surface processes

370902 Glaciology

370903 Natural hazards

370904 Palaeoclimatology

370905 Quaternary environments

370906 Regolith and landscape evolution

370999 Physical geography and environmental geoscience not elsewhere classified

**3799 Other earth sciences**

379901 Earth system sciences

379999 Other earth sciences not elsewhere classified

**38 ECONOMICS**

**3801 Applied economics**

380101 Agricultural economics

380102 Behavioural economics

380103 Economic history

380104 Economics of education

380105 Environment and resource economics

380106 Experimental economics

380107 Financial economics  
380108 Health economics  
380109 Industry economics and industrial organisation  
380110 International economics  
380111 Labour economics  
380112 Macroeconomics (incl. monetary and fiscal theory)  
380113 Public economics - public choice  
380114 Public economics - publicly provided goods  
380115 Public economics - taxation and revenue  
380116 Tourism economics  
380117 Transport economics  
380118 Urban and regional economics  
380119 Welfare economics  
380199 Applied economics not elsewhere classified

**3802 Econometrics**

380201 Cross-sectional analysis  
380202 Econometric and statistical methods  
380203 Economic models and forecasting  
380204 Panel data analysis  
380205 Time-series analysis  
380299 Econometrics not elsewhere classified

**3803 Economic theory**

380301 History of economic thought  
380302 Macroeconomic theory  
380303 Mathematical economics  
380304 Microeconomic theory  
380399 Economic theory not elsewhere classified

**3899 Other economics**

389901 Comparative economic systems  
389902 Ecological economics  
389903 Heterodox economics  
389999 Other economics not elsewhere classified



## **39 EDUCATION**

### **3901 Curriculum and pedagogy**

- 390101 Creative arts, media and communication curriculum and pedagogy
- 390102 Curriculum and pedagogy theory and development
- 390103 Economics, business and management curriculum and pedagogy
- 390104 English and literacy curriculum and pedagogy (excl. LOTE, ESL and TESOL)
- 390105 Environmental education curriculum and pedagogy
- 390106 Geography education curriculum and pedagogy
- 390107 Humanities and social sciences curriculum and pedagogy (excl. economics, business and management)
- 390108 LOTE, ESL and TESOL curriculum and pedagogy
- 390109 Mathematics and numeracy curriculum and pedagogy
- 390110 Medicine, nursing and health curriculum and pedagogy
- 390111 Physical education and development curriculum and pedagogy
- 390112 Religion curriculum and pedagogy
- 390113 Science, technology and engineering curriculum and pedagogy
- 390114 Vocational education and training curriculum and pedagogy
- 390115 Work integrated learning (incl. internships)
- 390199 Curriculum and pedagogy not elsewhere classified

### **3902 Education policy, sociology and philosophy**

- 390201 Education policy
- 390202 History and philosophy of education
- 390203 Sociology of education
- 390299 Education policy, sociology and philosophy not elsewhere classified

### **3903 Education systems**

- 390301 Continuing and community education
- 390302 Early childhood education
- 390303 Higher education
- 390304 Primary education
- 390305 Professional education and training
- 390306 Secondary education
- 390307 Teacher education and professional development of educators
- 390308 Technical, further and workplace education

390399 Education systems not elsewhere classified

**3904 Specialist studies in education**

390401 Comparative and cross-cultural education

390402 Education assessment and evaluation

390403 Educational administration, management and leadership

390404 Educational counselling

390405 Educational technology and computing

390406 Gender, sexuality and education

390407 Inclusive education

390408 Learning analytics

390409 Learning sciences

390410 Multicultural education (excl. Aboriginal and Torres Strait Islander, Māori and Pacific Peoples)

390411 Special education and disability

390412 Teacher and student wellbeing

390499 Specialist studies in education not elsewhere classified

**3999 Other Education**

399999 Other education not elsewhere classified

**40 ENGINEERING**

**4001 Aerospace engineering**

400101 Aerospace materials

400102 Aerospace structures

400103 Aircraft performance and flight control systems

400104 Avionics

400105 Flight dynamics

400106 Hypersonic propulsion and hypersonic aerothermodynamics

400107 Satellite, space vehicle and missile design and testing

400199 Aerospace engineering not elsewhere classified

**4002 Automotive engineering**

400201 Automotive combustion and fuel engineering

400202 Automotive engineering materials

400203 Automotive mechatronics and autonomous systems

400204 Automotive safety engineering

- 400205 Hybrid and electric vehicles and powertrains
- 400299 Automotive engineering not elsewhere classified

**4003 Biomedical engineering**

- 400301 Biofabrication
- 400302 Biomaterials
- 400303 Biomechanical engineering
- 400304 Biomedical imaging
- 400305 Biomedical instrumentation
- 400306 Computational physiology
- 400307 Mechanobiology
- 400308 Medical devices
- 400309 Neural engineering
- 400310 Rehabilitation engineering
- 400311 Tissue engineering
- 400399 Biomedical engineering not elsewhere classified

**4004 Chemical engineering**

- 400401 Carbon capture engineering (excl. sequestration)
- 400402 Chemical and thermal processes in energy and combustion
- 400403 Chemical engineering design
- 400404 Electrochemical energy storage and conversion
- 400405 Food engineering
- 400406 Powder and particle technology
- 400407 Process control and simulation
- 400408 Reaction engineering (excl. nuclear reactions)
- 400409 Separation technologies
- 400410 Wastewater treatment processes
- 400411 Water treatment processes
- 400499 Chemical engineering not elsewhere classified

**4005 Civil engineering**

- 400501 Architectural engineering
- 400502 Civil geotechnical engineering
- 400503 Complex civil systems
- 400504 Construction engineering

400505 Construction materials  
400506 Earthquake engineering  
400507 Fire safety engineering  
400508 Infrastructure engineering and asset management  
400509 Structural dynamics  
400510 Structural engineering  
400511 Timber engineering  
400512 Transport engineering  
400513 Water resources engineering  
400599 Civil engineering not elsewhere classified

**4006 Communications engineering**

400601 Antennas and propagation  
400602 Data communications  
400603 Molecular, biological, and multi-scale communications  
400604 Network engineering  
400605 Optical fibre communication systems and technologies  
400606 Satellite communications  
400607 Signal processing  
400608 Wireless communication systems and technologies (incl. microwave and millimetrewave)  
400699 Communications engineering not elsewhere classified

**4007 Control engineering, mechatronics and robotics**

400701 Assistive robots and technology  
400702 Automation engineering  
400703 Autonomous vehicle systems  
400704 Biomechanics  
400705 Control engineering  
400706 Field robotics  
400707 Manufacturing robotics  
400708 Mechatronics hardware design and architecture  
400709 Medical robotics  
400710 Micro-manipulation  
400711 Simulation, modelling, and programming of mechatronics systems  
400799 Control engineering, mechatronics and robotics not elsewhere classified

**4008 Electrical engineering**

- 400801 Circuits and systems
- 400802 Electrical circuits and systems
- 400803 Electrical energy generation (incl. renewables, excl. photovoltaics)
- 400804 Electrical energy storage
- 400805 Electrical energy transmission, networks and systems
- 400806 Electrical machines and drives
- 400807 Engineering electromagnetics
- 400808 Photovoltaic power systems
- 400899 Electrical engineering not elsewhere classified

**4009 Electronics, sensors and digital hardware**

- 400901 Analog electronics and interfaces
- 400902 Digital electronic devices
- 400903 Digital processor architectures
- 400904 Electronic device and system performance evaluation, testing and simulation
- 400905 Electronic instrumentation
- 400906 Electronic sensors
- 400907 Industrial electronics
- 400908 Microelectronics
- 400909 Photonic and electro-optical devices, sensors and systems (excl. communications)
- 400910 Photovoltaic devices (solar cells)
- 400911 Power electronics
- 400912 Quantum engineering systems (incl. computing and communications)
- 400913 Radio frequency engineering
- 400999 Electronics, sensors and digital hardware not elsewhere classified

**4010 Engineering practice and education**

- 401001 Engineering design
- 401002 Engineering education
- 401003 Engineering practice
- 401004 Humanitarian engineering
- 401005 Risk engineering
- 401006 Systems engineering
- 401099 Engineering practice and education not elsewhere classified

**4011 Environmental engineering**

- 401101 Air pollution modelling and control
- 401102 Environmentally sustainable engineering
- 401103 Global and planetary environmental engineering
- 401104 Health and ecological risk assessment
- 401105 Life cycle assessment and industrial ecology
- 401106 Waste management, reduction, reuse and recycling
- 401199 Environmental engineering not elsewhere classified

**4012 Fluid mechanics and thermal engineering**

- 401201 Aerodynamics (excl. hypersonic aerodynamics)
- 401202 Bio-fluids
- 401203 Biomedical fluid mechanics
- 401204 Computational methods in fluid flow, heat and mass transfer (incl. computational fluid dynamics)
- 401205 Experimental methods in fluid flow, heat and mass transfer
- 401206 Fluid-structure interaction and aeroacoustics
- 401207 Fundamental and theoretical fluid dynamics
- 401208 Geophysical and environmental fluid flows
- 401209 Hydrodynamics and hydraulic engineering
- 401210 Microfluidics and nanofluidics
- 401211 Multiphysics flows (incl. multiphase and reacting flows)
- 401212 Non-Newtonian fluid flows (incl. rheology)
- 401213 Turbulent flows
- 401299 Fluid mechanics and thermal engineering not elsewhere classified

**4013 Geomatic engineering**

- 401301 Cartography and digital mapping
- 401302 Geospatial information systems and geospatial data modelling
- 401303 Navigation and position fixing
- 401304 Photogrammetry and remote sensing
- 401305 Satellite-based positioning
- 401306 Surveying (incl. hydrographic surveying)
- 401399 Geomatic engineering not elsewhere classified

**4014 Manufacturing engineering**

- 401401 Additive manufacturing

401402 CAD/CAM systems  
401403 Flexible manufacturing systems  
401404 Industrial engineering  
401405 Machine tools  
401406 Machining  
401407 Manufacturing management  
401408 Manufacturing processes and technologies (excl. textiles)  
401409 Manufacturing safety and quality  
401410 Microtechnology  
401411 Packaging, storage and transportation (excl. food and agricultural products)  
401412 Precision engineering  
401413 Textile technology  
401499 Manufacturing engineering not elsewhere classified

**4015 Maritime engineering**

401501 Marine engineering  
401502 Naval architecture  
401503 Ocean engineering  
401504 Ship and platform structures (incl. maritime hydrodynamics)  
401505 Special vehicles  
401599 Maritime engineering not elsewhere classified

**4016 Materials engineering**

401601 Ceramics  
401602 Composite and hybrid materials  
401603 Compound semiconductors  
401604 Elemental semiconductors  
401605 Functional materials  
401606 Glass  
401607 Metals and alloy materials  
401608 Organic semiconductors  
401609 Polymers and plastics  
401610 Timber, pulp and paper  
401611 Wearable materials  
401699 Materials engineering not elsewhere classified

**4017 Mechanical engineering**

- 401701 Acoustics and noise control (excl. architectural acoustics)
- 401702 Dynamics, vibration and vibration control
- 401703 Energy generation, conversion and storage (excl. chemical and electrical)
- 401704 Mechanical engineering asset management
- 401705 Microelectromechanical systems (MEMS)
- 401706 Numerical modelling and mechanical characterisation
- 401707 Solid mechanics
- 401708 Tribology
- 401799 Mechanical engineering not elsewhere classified

**4018 Nanotechnology**

- 401801 Micro- and nanosystems
- 401802 Molecular and organic electronics
- 401803 Nanoelectromechanical systems
- 401804 Nanoelectronics
- 401805 Nanofabrication, growth and self assembly
- 401806 Nanomanufacturing
- 401807 Nanomaterials
- 401808 Nanometrology
- 401809 Nanophotonics
- 401810 Nanoscale characterisation
- 401899 Nanotechnology not elsewhere classified

**4019 Resources engineering and extractive metallurgy**

- 401901 Electrometallurgy
- 401902 Geomechanics and resources geotechnical engineering
- 401903 Hydrometallurgy
- 401904 Mineral processing/beneficiation
- 401905 Mining engineering
- 401906 Nuclear engineering (incl. fuel enrichment and waste processing and storage)
- 401907 Petroleum and reservoir engineering
- 401908 Pyrometallurgy
- 401999 Resources engineering and extractive metallurgy not elsewhere classified

**4099 Other engineering**



- 409901 Agricultural engineering
- 409902 Engineering instrumentation
- 409903 Granular mechanics
- 409999 Other engineering not elsewhere classified

## **41 ENVIRONMENTAL SCIENCES**

### **4101 Climate change impacts and adaptation**

- 410101 Carbon sequestration science
- 410102 Ecological impacts of climate change and ecological adaptation
- 410103 Human impacts of climate change and human adaptation
- 410199 Climate change impacts and adaptation not elsewhere classified

### **4102 Ecological applications**

- 410201 Bioavailability and ecotoxicology
- 410202 Biosecurity science and invasive species ecology
- 410203 Ecosystem function
- 410204 Ecosystem services (incl. pollination)
- 410205 Fire ecology
- 410206 Landscape ecology
- 410299 Ecological applications not elsewhere classified

### **4103 Environmental biotechnology**

- 410301 Biodiscovery
- 410302 Biological control
- 410303 Bioremediation
- 410304 Environmental biotechnology diagnostics (incl. biosensors)
- 410305 Environmental marine biotechnology
- 410306 Environmental nanotechnology and nanometrology
- 410399 Environmental biotechnology not elsewhere classified

### **4104 Environmental management**

- 410401 Conservation and biodiversity
- 410402 Environmental assessment and monitoring
- 410403 Environmental education and extension
- 410404 Environmental management
- 410405 Environmental rehabilitation and restoration

- 410406 Natural resource management
- 410407 Wildlife and habitat management
- 410499 Environmental management not elsewhere classified

**4105 Pollution and contamination**

- 410501 Environmental biogeochemistry
- 410502 Noise and wave pollution processes and measurement
- 410503 Groundwater quality processes and contaminated land assessment
- 410504 Surface water quality processes and contaminated sediment assessment
- 410599 Pollution and contamination not elsewhere classified

**4106 Soil sciences**

- 410601 Land capability and soil productivity
- 410602 Pedology and pedometrics
- 410603 Soil biology
- 410604 Soil chemistry and soil carbon sequestration (excl. carbon sequestration science)
- 410605 Soil physics
- 410699 Soil sciences not elsewhere classified

**4199 Other environmental sciences**

- 419999 Other environmental sciences not elsewhere classified

**42 HEALTH SCIENCES**

**4201 Allied health and rehabilitation science**

- 420101 Arts therapy
- 420102 Audiology
- 420103 Music therapy
- 420104 Occupational therapy
- 420105 Orthoptics
- 420106 Physiotherapy
- 420107 Podiatry
- 420108 Prosthetics and orthotics
- 420109 Rehabilitation
- 420110 Speech pathology
- 420199 Allied health and rehabilitation science not elsewhere classified

**4202 Epidemiology**

420201 Behavioural epidemiology  
420202 Disease surveillance  
420203 Environmental epidemiology  
420204 Epidemiological methods  
420205 Epidemiological modelling  
420206 Forensic epidemiology  
420207 Major global burdens of disease  
420208 Nutritional epidemiology  
420209 Occupational epidemiology  
420210 Social epidemiology  
420299 Epidemiology not elsewhere classified

**4203 Health services and systems**

420301 Aged health care  
420302 Digital health  
420303 Family care  
420304 General practice  
420305 Health and community services  
420306 Health care administration  
420307 Health counselling  
420308 Health informatics and information systems  
420309 Health management  
420310 Health surveillance  
420311 Health systems  
420312 Implementation science and evaluation  
420313 Mental health services  
420314 Multimorbidity  
420315 One health  
420316 Palliative care  
420317 Patient safety  
420318 People with disability  
420319 Primary health care  
420320 Residential client care  
420321 Rural and remote health services

420399 Health services and systems not elsewhere classified

**4204 Midwifery**

420401 Clinical midwifery

420402 Models of care and place of birth

420403 Psychosocial aspects of childbirth and perinatal mental health

420499 Midwifery not elsewhere classified

**4205 Nursing**

420501 Acute care

420502 Aged care nursing

420503 Community and primary care

420504 Mental health nursing

420505 Nursing workforce

420506 Sub-acute care

420599 Nursing not elsewhere classified

**4206 Public health**

420601 Community child health

420602 Health equity

420603 Health promotion

420604 Injury prevention

420605 Preventative health care

420606 Social determinants of health

420699 Public health not elsewhere classified

**4207 Sports science and exercise**

420701 Biomechanics

420702 Exercise physiology

420703 Motor control

420799 Sports science and exercise not elsewhere classified

**4208 Traditional, complementary and integrative medicine**

420801 Chiropractic

420802 Naturopathy

420803 Traditional Chinese medicine and treatments

420899 Traditional, complementary and integrative medicine not elsewhere classified

**4299 Other health sciences**

429999 Other health sciences not elsewhere classified

### **43 HISTORY, HERITAGE AND ARCHAEOLOGY**

#### **4301 Archaeology**

430101 Archaeological science

430102 Archaeology of Asia, Africa and the Americas

430103 Archaeology of Australia (excl. Aboriginal and Torres Strait Islander)

430104 Archaeology of Europe, the Mediterranean and the Levant

430105 Archaeology of New Zealand (excl. Māori)

430106 Digital archaeology

430107 Historical archaeology (incl. industrial archaeology)

430108 Maritime archaeology

430199 Archaeology not elsewhere classified

#### **4302 Heritage, archive and museum studies**

430201 Archival, repository and related studies

430202 Critical heritage, museum and archive studies

430203 Cultural heritage management (incl. world heritage)

430204 Digital heritage

430205 Heritage and cultural conservation

430206 Heritage collections and interpretations

430207 Heritage tourism, visitor and audience studies

430208 Intangible heritage

430209 Materials conservation

430299 Heritage, archive and museum studies not elsewhere classified

#### **4303 Historical studies**

430301 Asian history

430302 Australian history

430303 Biography

430304 British history

430305 Classical Greek and Roman history

430306 Digital history

430307 Environmental history

430308 European history (excl. British, classical Greek and Roman)

- 430309 Gender history
- 430310 Global and world history
- 430311 Historical studies of crime
- 430312 Histories of race
- 430313 History of empires, imperialism and colonialism
- 430314 History of religion
- 430315 History of the pacific
- 430316 International history
- 430317 Latin and South American history
- 430318 Middle Eastern and North African history
- 430319 Migration history
- 430320 New Zealand history
- 430321 North American history
- 430322 Sub-Saharan African history
- 430323 Transnational history
- 430399 Historical studies not elsewhere classified
- 4399 Other history, heritage and archaeology**
- 439999 Other history, heritage and archaeology not elsewhere classified

## **44 HUMAN SOCIETY**

### **4401 Anthropology**

- 440101 Anthropology of development
- 440102 Anthropology of gender and sexuality
- 440103 Biological (physical) anthropology
- 440104 Environmental anthropology
- 440105 Linguistic anthropology
- 440106 Medical anthropology
- 440107 Social and cultural anthropology
- 440199 Anthropology not elsewhere classified

### **4402 Criminology**

- 440201 Causes and prevention of crime
- 440202 Correctional theory, offender treatment and rehabilitation
- 440203 Courts and sentencing

440204 Crime and social justice  
440205 Criminological theories  
440206 Critical approaches to crime  
440207 Cybercrime  
440208 Environmental crime  
440209 Gender and crime  
440210 Organised crime  
440211 Police administration, procedures and practice  
440212 Private policing and security services  
440213 Race/ethnicity and crime  
440214 Sociological studies of crime  
440215 State crime  
440216 Technology, crime and surveillance  
440217 Terrorism  
440218 Victims  
440219 White collar crime  
440299 Criminology not elsewhere classified

**4403 Demography**

440301 Family and household studies  
440302 Fertility  
440303 Migration  
440304 Mortality  
440305 Population trends and policies  
440399 Demography not elsewhere classified

**4404 Development studies**

440401 Development cooperation  
440402 Humanitarian disasters, conflict and peacebuilding  
440403 Labour, migration and development  
440404 Political economy and social change  
440405 Poverty, inclusivity and wellbeing  
440406 Rural community development  
440407 Socio-economic development  
440408 Urban community development

440499 Development studies not elsewhere classified

**4405 Gender studies**

440501 Feminist and queer theory

440502 Feminist methodologies

440503 Feminist theory

440504 Gender relations

440505 Intersectional studies

440506 Sexualities

440507 Studies of men and masculinities

440508 Transgender studies

440509 Women's studies (incl. girls' studies)

440599 Gender studies not elsewhere classified

**4406 Human geography**

440601 Cultural geography

440602 Development geography

440603 Economic geography

440604 Environmental geography

440605 Health geography

440606 Political geography

440607 Population geography

440608 Recreation, leisure and tourism geography

440609 Rural and regional geography

440610 Social geography

440611 Transport geography

440612 Urban geography

440699 Human geography not elsewhere classified

**4407 Policy and administration**

440701 Communications and media policy

440702 Crime policy

440703 Economic development policy

440704 Environment policy

440705 Gender, policy and administration

440706 Health policy



440707 Housing policy  
440708 Public administration  
440709 Public policy  
440710 Research, science and technology policy  
440711 Risk policy  
440712 Social policy  
440713 Tourism policy  
440714 Urban policy  
440799 Policy and administration not elsewhere classified

**4408 Political science**

440801 Australian government and politics  
440802 Citizenship  
440803 Comparative government and politics  
440804 Defence studies  
440805 Environmental politics  
440806 Gender and politics  
440807 Government and politics of Asia and the Pacific  
440808 International relations  
440809 New Zealand government and politics  
440810 Peace studies  
440811 Political theory and political philosophy  
440899 Political science not elsewhere classified

**4409 Social work**

440901 Clinical social work practice  
440902 Counselling, wellbeing and community services  
440903 Social program evaluation  
440999 Social work not elsewhere classified

**4410 Sociology**

441001 Applied sociology, program evaluation and social impact assessment  
441002 Environmental sociology  
441003 Rural sociology  
441004 Social change  
441005 Social theory

441006 Sociological methodology and research methods  
441007 Sociology and social studies of science and technology  
441008 Sociology of culture  
441009 Sociology of family and relationships  
441010 Sociology of gender  
441011 Sociology of health  
441012 Sociology of inequalities  
441013 Sociology of migration, ethnicity and multiculturalism  
441014 Sociology of religion  
441015 Sociology of the life course  
441016 Urban sociology and community studies  
441099 Sociology not elsewhere classified

**4499 Other human society**

449901 Studies of Asian society  
449999 Other human society not elsewhere classified

**45 INDIGENOUS STUDIES**

**4501 Aboriginal and Torres Strait Islander culture, language and history**

450101 Aboriginal and Torres Strait Islander archaeology  
450102 Aboriginal and Torres Strait Islander artefacts  
450103 Aboriginal and Torres Strait Islander cultural history  
450104 Aboriginal and Torres Strait Islander culture  
450105 Aboriginal and Torres Strait Islander curatorial, archives and museum studies  
450106 Aboriginal and Torres Strait Islander ethics  
450107 Aboriginal and Torres Strait Islander history  
450108 Aboriginal and Torres Strait Islander linguistics and languages  
450109 Aboriginal and Torres Strait Islander literature, journalism and professional writing  
450110 Aboriginal and Torres Strait Islander media, film, animation and photography  
450111 Aboriginal and Torres Strait Islander music and performing arts  
450112 Aboriginal and Torres Strait Islander philosophy  
450113 Aboriginal and Torres Strait Islander religion and religious studies  
450114 Aboriginal and Torres Strait Islander repatriation  
450115 Aboriginal and Torres Strait Islander research methods

- 450116 Aboriginal and Torres Strait Islander visual arts and crafts
- 450117 Aboriginal and Torres Strait Islander ways of knowing, being and doing
- 450118 Conservation of Aboriginal and Torres Strait Islander heritage
- 450199 Aboriginal and Torres Strait Islander culture, language and history not elsewhere classified
- 4502 Aboriginal and Torres Strait Islander education**
- 450201 Aboriginal and Torres Strait Islander curriculum and pedagogy
- 450202 Aboriginal and Torres Strait Islander early childhood education
- 450203 Aboriginal and Torres Strait Islander educational methods
- 450204 Aboriginal and Torres Strait Islander technical, further, continuing and community education
- 450205 Aboriginal and Torres Strait Islander higher education
- 450206 Aboriginal and Torres Strait Islander language education
- 450207 Aboriginal and Torres Strait Islander men's education
- 450208 Aboriginal and Torres Strait Islander primary education
- 450209 Aboriginal and Torres Strait Islander secondary education
- 450210 Aboriginal and Torres Strait Islander student engagement and teaching
- 450211 Aboriginal and Torres Strait Islander women's education
- 450212 Cultural responsiveness and working with Aboriginal and Torres Strait Islander communities education
- 450213 Embedding Aboriginal and Torres Strait Islander knowledges, histories, culture, country, perspectives and ethics in education
- 450299 Aboriginal and Torres Strait Islander education not elsewhere classified
- 4503 Aboriginal and Torres Strait Islander environmental knowledges and management**
- 450301 Aboriginal and Torres Strait Islander agriculture and forestry
- 450302 Aboriginal and Torres Strait Islander earth sciences
- 450303 Aboriginal and Torres Strait Islander environmental conservation
- 450304 Aboriginal and Torres Strait Islander environmental knowledges
- 450305 Aboriginal and Torres Strait Islander fisheries and customary fisheries
- 450306 Aboriginal and Torres Strait Islander land and water management
- 450307 Aboriginal and Torres Strait Islander marine environment science
- 450399 Aboriginal and Torres Strait Islander environmental knowledges and management not elsewhere classified
- 4504 Aboriginal and Torres Strait Islander health and wellbeing**
- 450401 Aboriginal and Torres Strait Islander and disability
- 450402 Aboriginal and Torres Strait Islander biomedical and clinical sciences

- 450403 Aboriginal and Torres Strait Islander child health and wellbeing
- 450404 Aboriginal and Torres Strait Islander cultural determinants of health
- 450405 Aboriginal and Torres Strait Islander diet and nutrition
- 450406 Aboriginal and Torres Strait Islander epidemiology
- 450407 Aboriginal and Torres Strait Islander health policy
- 450408 Aboriginal and Torres Strait Islander health promotion
- 450409 Aboriginal and Torres Strait Islander health services
- 450410 Aboriginal and Torres Strait Islander lifecourse
- 450411 Aboriginal and Torres Strait Islander medicine and treatments
- 450412 Aboriginal and Torres Strait Islander men's health and wellbeing
- 450413 Aboriginal and Torres Strait Islander midwifery and paediatrics
- 450414 Aboriginal and Torres Strait Islander mothers and babies health and wellbeing
- 450415 Aboriginal and Torres Strait Islander nursing
- 450416 Aboriginal and Torres Strait Islander psychology
- 450417 Aboriginal and Torres Strait Islander public health and wellbeing
- 450418 Aboriginal and Torres Strait Islander remote health
- 450419 Aboriginal and Torres Strait Islander social determinants of health
- 450420 Aboriginal and Torres Strait Islander social, emotional, cultural and spiritual wellbeing
- 450421 Aboriginal and Torres Strait Islander sport and physical activity
- 450422 Aboriginal and Torres Strait Islander theory of change models for health
- 450423 Aboriginal and Torres Strait Islander youth and family social and emotional wellbeing
- 450499 Aboriginal and Torres Strait Islander health and wellbeing not elsewhere classified
- 4505 Aboriginal and Torres Strait Islander peoples, society and community**
- 450501 Aboriginal and Torres Strait Islander accounting
- 450502 Aboriginal and Torres Strait Islander anthropology
- 450503 Aboriginal and Torres Strait Islander architecture
- 450504 Aboriginal and Torres Strait Islander commerce
- 450505 Aboriginal and Torres Strait Islander community and regional development
- 450506 Aboriginal and Torres Strait Islander community governance and decision making
- 450507 Aboriginal and Torres Strait Islander community-based research
- 450508 Aboriginal and Torres Strait Islander criminology
- 450509 Aboriginal and Torres Strait Islander customary law
- 450510 Aboriginal and Torres Strait Islander design practice and management

- 450511 Aboriginal and Torres Strait Islander economics
- 450512 Aboriginal and Torres Strait Islander finance
- 450513 Aboriginal and Torres Strait Islander human geography and demography
- 450514 Aboriginal and Torres Strait Islander legislation
- 450515 Aboriginal and Torres Strait Islander management
- 450516 Aboriginal and Torres Strait Islander marketing
- 450517 Aboriginal and Torres Strait Islander not-for-profit social enterprises
- 450518 Aboriginal and Torres Strait Islander peoples and the law
- 450519 Aboriginal and Torres Strait Islander perspectives
- 450520 Aboriginal and Torres Strait Islander political participation and representation
- 450521 Aboriginal and Torres Strait Islander politics
- 450522 Aboriginal and Torres Strait Islander social impact and program evaluation
- 450523 Aboriginal and Torres Strait Islander social work and social justice
- 450524 Aboriginal and Torres Strait Islander sociological studies
- 450525 Aboriginal and Torres Strait Islander sociology
- 450526 Aboriginal and Torres Strait Islander tourism
- 450527 Aboriginal and Torres Strait Islander urban and regional planning
- 450599 Aboriginal and Torres Strait Islander peoples, society and community not elsewhere classified

**4506 Aboriginal and Torres Strait Islander sciences**

- 450601 Aboriginal and Torres Strait Islander astronomy and cosmology
- 450602 Aboriginal and Torres Strait Islander biological sciences
- 450603 Aboriginal and Torres Strait Islander computing technology use and design
- 450604 Aboriginal and Torres Strait Islander engineering
- 450605 Aboriginal and Torres Strait Islander genomics
- 450606 Aboriginal and Torres Strait Islander information and knowledge management systems
- 450607 Aboriginal and Torres Strait Islander innovation
- 450608 Aboriginal and Torres Strait Islander knowledge management methods
- 450609 Aboriginal and Torres Strait Islander mathematical, physical and chemical sciences (excl. astronomy and cosmology)
- 450699 Aboriginal and Torres Strait Islander sciences not elsewhere classified

**4507 Te ahurea, reo me te hītori o te Māori (Māori culture, language and history)**

- 450701 Te whāomoomo i te tuku ihotanga Māori (conservation of Māori heritage)
- 450702 Te mana wahine (female status)

- 450703 Te mana tāne (male status)
- 450704 Te mātai whaipara Māori (Māori archaeology)
- 450705 Ngā taonga Māori nō mua (Māori artefacts)
- 450706 Te hītori ahurea Māori (Māori cultural history)
- 450707 Te ahurea Māori (Māori culture)
- 450708 Ngā mātai kaitiaki, pūranga me ngā whare tongarewa o te Māori (Māori curatorial, archives and museum studies)
- 450709 Ngā matatika o te Māori (Māori ethics)
- 450710 Te hītori Māori (Māori history)
- 450711 Te whenua, ahurea me te tuakiri o te Māori (Māori land, culture and identity)
- 450712 Te mātai i te reo Māori me te reo Māori (Māori linguistics and languages)
- 450713 Te mātākōrero, te kawē kōrero me te tuhituhi ngaio o te Māori (Māori literature, journalism and professional writing)
- 450714 Ngā arapāho, ngā kiriata, te hākoritanga me te hopu whakaahua o te Māori (Māori media, film, animation and photography)
- 450715 Te puoro me ngā mahi a te rēhia o te Māori (Māori music and performing arts)
- 450716 Te rapunga whakaaro o te Māori (Māori philosophy)
- 450717 Ngā Kaupapa Māori (Māori projects)
- 450718 Te whakapono me te mātai whakapono o te Māori (Māori religion and religious studies)
- 450719 Te whakahoki taonga a te Māori ki te kāinga (Māori repatriation)
- 450720 Ngā tikanga rangahau o te Māori (Māori research methods)
- 450721 Ngā toi ataata ngā mahi ā-rehe o te Māori (Māori visual arts and crafts)
- 450799 Te ahurea, reo, me te hītori o te Māori kāore anō kia whakarōpūtia i wāhi kē (Māori culture, language and history not elsewhere classified)
- 4508 Mātauranga Māori (Māori education)**
- 450801 Ngā kōhanga reo (Māori curriculum and pedagogy)
- 450802 Te Whāriki - te mātauranga kōhungahunga Māori (Māori early childhood education)
- 450803 Ngā tikanga mātauranga o te Māori (Māori educational methods)
- 450804 Te mātauranga kura tuatoru Māori (Māori higher education)
- 450805 Te mātauranga reo Māori (Māori language education)
- 450806 Ngā kura kaupapa Māori (Māori primary education)
- 450807 Te urupare me te whai wāhi Māori ki te mātauranga (Māori responsiveness and engaged education)
- 450808 Te mātauranga kura tuarua Māori (Māori secondary education)
- 450809 Te whai wāhi ākongā me ngā mahi whakaako o te Māori (Māori student engagement and teaching)

450810 Tō te Māori mātauranga hangarau, mātauranga atu anō, mātauranga haere tonu, me te mātauranga hapori (Māori technical, further, continuing and community education)

450811 Te mātauranga Māori i roto i te mātauranga (Mātauranga Māori in education)

450899 Te mātauranga Māori kāore anō kia whakarōpūtia i wāhi kē (Māori education not elsewhere classified)

**4509 Ngā mātauranga taiao o te Māori (Māori environmental knowledges)**

450901 Te ahuwhehua me ngā mahi ngahere o te Māori (Māori agriculture and forestry)

450902 Ngā pūtaiao-ā-nuku o te Māori (Māori earth sciences)

450903 Te whāomoomo taiao o te Māori (Māori environmental conservation)

450904 Ngā mātauranga taiao o te Māori (Māori environmental knowledges)

450905 Te ahumoana me te ahumoana tuku iho o te Māori (Māori fisheries and customary fisheries)

450906 Te whakahaere whenua me te wai o te Māori (Māori land and water management)

450907 Te pūtaiao taiao moana o te Māori (Māori marine environment science)

450999 Ngā mātauranga taiao o te Māori kāore anō kia whakarōpūtia i wāhi kē (Māori environmental knowledges not elsewhere classified)

**4510 Te hauora me te oranga o te Māori (Māori health and wellbeing)**

451001 Te whaikaha me te Māori (Māori and disability)

451002 Ngā pūtaiao koiora-hauora, haumanu hoki o te Māori (Māori biomedical and clinical sciences)

451003 Ngā tokoingoa ahurea o te hauora o te Māori (Māori cultural determinants of health)

451004 Te horakai me ngā kai o te Māori (Māori diet and nutrition)

451005 Te mātai tahumaero o te Māori (Māori epidemiology)

451006 Ngā kaupapahere hauora o te Māori (Māori health policy)

451007 Te whakatairanga hauora o te Māori (Māori health promotion)

451008 Ngā wāhanga ora o te Māori (Māori life course)

451009 Ngā rongoā me ngā whakamaimoa o te Māori (Māori medicine and treatments)

451010 Ngā kaiwhakawhānau me te mātai mate tamariki o te Māori (Māori midwifery and paediatrics)

451011 Te hauora me te oranga ā-whaea, ā-pēpi o te Māori (Māori mothers and babies health and wellbeing)

451012 Te mahi tapuhi o te Māori (Māori nursing)

451013 Mātauranga hinengaro kaupapa Māori (Māori psychology)

451014 Ngā pūnaha mātauranga hinengaro o te Māori (Māori psychology knowledge systems)

451015 Te hauora me te oranga tūmatanui o te Māori (Māori public health and wellbeing)

451016 Te hauora mamao o te Māori (Māori remote health)

451017 Te oranga ā-pāpori, ā-hinengaro, ā-ahurea, ā-wairua o te Māori (Māori social, cultural, emotional and spiritual wellbeing)

- 451018 Ngā tokoingoa pāpori o te hauora o te Māori (Māori social determinants of health)
- 451019 Ngā hākinakina me te korikori tinana o te Māori (Māori sport and physical activity)
- 451020 Te ariā o ngā tauira panoni hauora o te Māori (Māori theory of change models for health)
- 451021 Ngā taiohi me ngā whānau Māori (Māori youth and family)
- 451099 Te hauora me te oranga o te Māori kāore anō kia whakarōpūhia i wāhi kē (Māori health and wellbeing not elsewhere classified)

**4511 Ngā tāngata, te porihanga me ngā hapori o te Māori (Māori peoples, society and community)**

- 451101 Te mahi kaute o te Māori (Māori accounting)
- 451102 Te mātauranga tikanga Māori (Māori anthropology)
- 451103 Te hoahoanga whare o te Māori (Māori architecture)
- 451104 Ngā mahi tauhokohoko o te Māori (Māori commerce)
- 451105 Te whanaketanga ā-hapori, ā-rohe o te Māori (Māori community and regional development)
- 451106 Te rangahau kei rō hapori o te Māori (Māori community-based research)
- 451107 Te kāwana ā-hapori, whakatau take hoki o te Māori (Māori community governance and decision making)
- 451108 Te mātauranga taihara Māori (Māori criminology)
- 451109 Ngā tikanga Māori (Māori customary law)
- 451110 Te whakaharatau me te whakahaere hoahoa o te Māori (Māori design practice and management)
- 451111 Te mātauranga ōhanga o te Māori (Māori economics)
- 451112 Te ahumoni Māori (Māori finance)
- 451113 Te mātauranga matawhenua ā-iwi me te tatauranga ā-iwi o te Māori (Māori human geography and demography)
- 451114 Te ture Whenua (Māori land law)
- 451115 Te ture me te tika Māori (Māori law and justice)
- 451116 Ngā ture Māori (Māori legislation)
- 451117 Te whakahaere o te Māori (Māori management)
- 451118 Te whakamāketete o te Māori (Māori marketing)
- 451119 Ngā hinonga pāpori kaupapa atawhai o te Māori (Māori not-for-profit social enterprises)
- 451120 Ngā iwi Māori me te ture (Māori peoples and the law)
- 451121 Ngā tirohanga Māori (Māori perspectives)
- 451122 Te whai wāhi me te whakakanohi taha tōrangapū o te Māori (Māori political participation and representation)
- 451123 Ngā mahi tōrangapū Māori (Māori politics)
- 451124 Ngā ture rawa Māori (Māori resource law)



- 451125 Te pāpātanga pāpori me te aromātai hōtaka o te Māori (Māori social impact and program evaluation)
- 451126 Ngā mahi tauwhiro me te tika pāpori o te Māori (Māori social work and social justice)
- 451127 Ngā mātai tikanga ā-iwi o te Māori (Māori sociological studies)
- 451128 Te mātauranga pāpori o te Māori (Māori sociology)
- 451129 Te mahi tāpoi Māori (Māori tourism)
- 451130 Te Tiriti o Waitangi (The Treaty of Waitangi)
- 451131 Te whakamahere ā-tāone, ā-rohe o te Māori (Māori urban and regional planning)
- 451199 Ngā tāngata, te porihanga me ngā hapori o te Māori kāore anō kia whakarōpūtia i wāhi kē (Māori peoples, society and community not elsewhere classified)

**4512 Ngā pūtaiao Māori (Māori sciences)**

- 451201 Te mātai arorangi me te mātai tuarangi o te Māori (Māori astronomy and cosmology)
- 451202 Ngā pūtaiao koiora o te Māori (Māori biological sciences)
- 451203 Te whakamahi me te hoahoa o te hangarau rorohiko o te Māori (Māori computing technology use and design)
- 451204 Te mana motuhake o ngā raraunga Māori (Māori data sovereignty)
- 451205 Te mātauranga pūkaha o te Māori (Māori engineering)
- 451206 Te mātai huingaira o te Māori (Māori genomics)
- 451207 Ngā pūnaha whakahaere mōhiohio me te mātauranga o te Māori (Māori information and knowledge management systems)
- 451208 Te wairua auaha o te Māori (Māori innovation)
- 451209 Ngā tikanga whakahaere mōhiohio Māori (Māori knowledge management methods)
- 451210 Ngā pūtaiao pāngarau, ōkiko, matū hoki - hāunga te mātai arorangi me te mātai tuarangi o te Māori (Māori mathematical, physical and chemical sciences - excl. astronomy and cosmology)
- 451211 Te tukatuka reo noa o te Māori (Māori natural language processing)
- 451299 Ngā pūtaiao Māori kāore anō kia whakarōpūhia i wāhi kē (Māori sciences not elsewhere classified)

**4513 Pacific Peoples culture, language and history**

- 451301 Archaeology of New Guinea and Pacific Islands (excl. New Zealand)
- 451302 Conservation of Pacific Peoples heritage
- 451303 Pacific Peoples artefacts
- 451304 Pacific Peoples cultural history
- 451305 Pacific Peoples culture
- 451306 Pacific Peoples curatorial, archives and museum studies
- 451307 Pacific Peoples ethics
- 451308 Pacific Peoples history

- 451309 Pacific Peoples land, culture and identity
- 451310 Pacific Peoples linguistics and languages
- 451311 Pacific Peoples literature, journalism and professional writing
- 451312 Pacific Peoples media, film, animation and photography
- 451313 Pacific Peoples music and performing arts
- 451314 Pacific Peoples philosophy
- 451315 Pacific Peoples religion and religious studies
- 451316 Pacific Peoples repatriation
- 451317 Pacific Peoples research methods
- 451318 Pacific Peoples visual arts and crafts
- 451319 Pacific Peoples ways of knowing, being and doing
- 451399 Pacific Peoples culture, language and history not elsewhere classified

**4514 Pacific Peoples education**

- 451401 Cultural responsiveness and working with Pacific Peoples communities education
- 451402 Embedding Pacific Peoples knowledges, histories, culture, country, perspectives and ethics in education
- 451403 Pacific Peoples curriculum and pedagogy
- 451404 Pacific Peoples early childhood education
- 451405 Pacific Peoples educational methods
- 451406 Pacific Peoples technical, further, continuing and community education
- 451407 Pacific Peoples higher education
- 451408 Pacific Peoples language education
- 451409 Pacific Peoples men's education
- 451410 Pacific Peoples primary education
- 451411 Pacific Peoples secondary education
- 451412 Pacific Peoples student engagement and teaching
- 451413 Pacific Peoples women's education
- 451499 Pacific Peoples education not elsewhere classified

**4515 Pacific Peoples environmental knowledges**

- 451501 Pacific Peoples agriculture and forestry
- 451502 Pacific Peoples earth sciences
- 451503 Pacific Peoples environmental conservation
- 451504 Pacific Peoples environmental knowledges

- 451505 Pacific Peoples fisheries and customary fisheries
- 451506 Pacific Peoples land and water management
- 451507 Pacific Peoples marine environment science
- 451599 Pacific Peoples environmental knowledges not elsewhere classified

**4516 Pacific Peoples health and wellbeing**

- 451601 Pacific Peoples and disability
- 451602 Pacific Peoples biomedical and clinical science
- 451603 Pacific Peoples cultural determinants of health
- 451604 Pacific Peoples diet and nutrition
- 451605 Pacific Peoples epidemiology
- 451606 Pacific Peoples health policy
- 451607 Pacific Peoples health promotion
- 451608 Pacific Peoples life course
- 451609 Pacific Peoples medicine and treatments
- 451610 Pacific Peoples midwifery and paediatrics
- 451611 Pacific Peoples mothers and babies health and wellbeing
- 451612 Pacific Peoples nursing
- 451613 Pacific Peoples psychology
- 451614 Pacific Peoples public health and wellbeing
- 451615 Pacific Peoples remote health
- 451616 Pacific Peoples social determinants of health
- 451617 Pacific Peoples social, cultural, emotional and spiritual wellbeing
- 451618 Pacific Peoples sport and physical activity
- 451619 Pacific Peoples theory of change models for health
- 451620 Pacific Peoples youth and family
- 451699 Pacific Peoples health and wellbeing not elsewhere classified

**4517 Pacific Peoples sciences**

- 451701 Pacific Peoples astronomy and cosmology
- 451702 Pacific Peoples biological sciences
- 451703 Pacific Peoples computing technology use and design
- 451704 Pacific Peoples engineering
- 451705 Pacific Peoples genomics
- 451706 Pacific Peoples information and knowledge management systems

- 451707 Pacific Peoples innovation
- 451708 Pacific Peoples knowledge management methods
- 451709 Pacific Peoples mathematical, physical and chemical sciences (excl. astronomy and cosmology)
- 451799 Pacific Peoples sciences not elsewhere classified

**4518 Pacific Peoples society and community**

- 451801 Pacific Peoples and the law
- 451802 Pacific Peoples anthropology
- 451803 Pacific Peoples architecture
- 451804 Pacific Peoples commerce
- 451805 Pacific Peoples community and regional development
- 451806 Pacific Peoples community governance and decision making
- 451807 Pacific Peoples community-based research
- 451808 Pacific Peoples criminology
- 451809 Pacific Peoples customary law
- 451810 Pacific Peoples design practice and management
- 451811 Pacific Peoples economics
- 451812 Pacific Peoples finance
- 451813 Pacific Peoples human geography and demography
- 451814 Pacific Peoples legislation
- 451815 Pacific Peoples management
- 451816 Pacific Peoples marketing
- 451817 Pacific Peoples not-for-profit social enterprises
- 451818 Pacific Peoples perspectives
- 451819 Pacific Peoples political participation and representation
- 451820 Pacific Peoples politics
- 451821 Pacific Peoples social impact and program evaluation
- 451822 Pacific Peoples social work and social justice
- 451823 Pacific Peoples sociological studies
- 451824 Pacific Peoples sociology
- 451825 Pacific Peoples tourism
- 451826 Pacific Peoples urban and regional planning
- 451899 Pacific Peoples, society and community not elsewhere classified

**4519 Other Indigenous data, methodologies and global Indigenous studies**

- 451901 Global Indigenous studies culture, language and history
- 451902 Global Indigenous studies environmental knowledges and management
- 451903 Global Indigenous studies health and wellbeing
- 451904 Global Indigenous studies peoples, society and community
- 451905 Global Indigenous studies sciences
- 451906 Indigenous data and data technologies
- 451907 Indigenous methodologies
- 451999 Other Indigenous data, methodologies and global Indigenous studies not elsewhere classified
- 4599 Other Indigenous studies**
- 459999 Other Indigenous studies not elsewhere classified

## **46 INFORMATION AND COMPUTING SCIENCES**

### **4601 Applied computing**

- 460101 Applications in arts and humanities
- 460102 Applications in health
- 460103 Applications in life sciences
- 460104 Applications in physical sciences
- 460105 Applications in social sciences and education
- 460106 Spatial data and applications
- 460199 Applied computing not elsewhere classified

### **4602 Artificial intelligence**

- 460201 Artificial life and complex adaptive systems
- 460202 Autonomous agents and multiagent systems
- 460203 Evolutionary computation
- 460204 Fuzzy computation
- 460205 Intelligent robotics
- 460206 Knowledge representation and reasoning
- 460207 Modelling and simulation
- 460208 Natural language processing
- 460209 Planning and decision making
- 460210 Satisfiability and optimisation
- 460211 Speech production
- 460212 Speech recognition

460299 Artificial intelligence not elsewhere classified

**4603 Computer vision and multimedia computation**

460301 Active sensing

460302 Audio processing

460303 Computational imaging

460304 Computer vision

460305 Image and video coding

460306 Image processing

460307 Multimodal analysis and synthesis

460308 Pattern recognition

460309 Video processing

460399 Computer vision and multimedia computation not elsewhere classified

**4604 Cybersecurity and privacy**

460401 Cryptography

460402 Data and information privacy

460403 Data security and protection

460404 Digital forensics

460405 Hardware security

460406 Software and application security

460407 System and network security

460499 Cybersecurity and privacy not elsewhere classified

**4605 Data management and data science**

460501 Data engineering and data science

460502 Data mining and knowledge discovery

460503 Data models, storage and indexing

460504 Data quality

460505 Database systems

460506 Graph, social and multimedia data

460507 Information extraction and fusion

460508 Information retrieval and web search

460509 Query processing and optimisation

460510 Recommender systems

460511 Stream and sensor data

460599 Data management and data science not elsewhere classified

**4606 Distributed computing and systems software**

460601 Cloud computing

460602 Concurrent/parallel systems and technologies

460603 Cyberphysical systems and internet of things

460604 Dependable systems

460605 Distributed systems and algorithms

460606 Energy-efficient computing

460607 High performance computing

460608 Mobile computing

460609 Networking and communications

460610 Operating systems

460611 Performance evaluation

460612 Service oriented computing

460699 Distributed computing and systems software not elsewhere classified

**4607 Graphics, augmented reality and games**

460701 Computer aided design

460702 Computer graphics

460703 Entertainment and gaming

460704 Interactive narrative

460705 Procedural content generation

460706 Serious games

460707 Sound and music computing

460708 Virtual and mixed reality

460799 Graphics, augmented reality and games not elsewhere classified

**4608 Human-centred computing**

460801 Accessible computing

460802 Affective computing

460803 Collaborative and social computing

460804 Computing education

460805 Fairness, accountability, transparency, trust and ethics of computer systems

460806 Human-computer interaction

460807 Information visualisation

- 460808 Mixed initiative and human-in-the-loop
- 460809 Pervasive computing
- 460810 Social robotics
- 460899 Human-centred computing not elsewhere classified

**4609 Information systems**

- 460901 Business process management
- 460902 Decision support and group support systems
- 460903 Information modelling, management and ontologies
- 460904 Information security management
- 460905 Information systems development methodologies and practice
- 460906 Information systems education
- 460907 Information systems for sustainable development and the public good
- 460908 Information systems organisation and management
- 460909 Information systems philosophy, research methods and theory
- 460910 Information systems user experience design and development
- 460911 Inter-organisational, extra-organisational and global information systems
- 460912 Knowledge and information management
- 460999 Information systems not elsewhere classified

**4610 Library and information studies**

- 461001 Digital curation and preservation
- 461002 Human information behaviour
- 461003 Human information interaction and retrieval
- 461004 Information governance, policy and ethics
- 461005 Informetrics
- 461006 Library studies
- 461007 Open access
- 461008 Organisation of information and knowledge resources
- 461009 Recordkeeping informatics
- 461010 Social and community informatics
- 461099 Library and information studies not elsewhere classified

**4611 Machine learning**

- 461101 Adversarial machine learning
- 461102 Context learning



- 461103 Deep learning
- 461104 Neural networks
- 461105 Reinforcement learning
- 461106 Semi- and unsupervised learning
- 461199 Machine learning not elsewhere classified

**4612 Software engineering**

- 461201 Automated software engineering
- 461202 Empirical software engineering
- 461203 Formal methods for software
- 461204 Programming languages
- 461205 Requirements engineering
- 461206 Software architecture
- 461207 Software quality, processes and metrics
- 461208 Software testing, verification and validation
- 461299 Software engineering not elsewhere classified

**4613 Theory of computation**

- 461301 Coding, information theory and compression
- 461302 Computational complexity and computability
- 461303 Computational logic and formal languages
- 461304 Concurrency theory
- 461305 Data structures and algorithms
- 461306 Numerical computation and mathematical software
- 461307 Quantum computation
- 461399 Theory of computation not elsewhere classified

**4699 Other information and computing sciences**

- 469999 Other information and computing sciences not elsewhere classified

**47 LANGUAGE, COMMUNICATION AND CULTURE**

**4701 Communication and media studies**

- 470101 Communication studies
- 470102 Communication technology and digital media studies
- 470103 Environmental communication
- 470104 International and development communication

- 470105 Journalism studies
- 470106 Media industry studies
- 470107 Media studies
- 470108 Organisational, interpersonal and intercultural communication
- 470199 Communication and media studies not elsewhere classified

**4702 Cultural studies**

- 470201 Arts and cultural policy
- 470202 Asian cultural studies
- 470203 Consumption and everyday life
- 470204 Cultural and creative industries
- 470205 Cultural studies of agriculture, food and wine
- 470206 Cultural studies of nation and region
- 470207 Cultural theory
- 470208 Culture, representation and identity
- 470209 Environment and culture
- 470210 Globalisation and culture
- 470211 Migrant cultural studies
- 470212 Multicultural, intercultural and cross-cultural studies
- 470213 Postcolonial studies
- 470214 Screen and media culture
- 470299 Cultural studies not elsewhere classified

**4703 Language studies**

- 470301 African languages
- 470302 Central and Eastern European languages (incl. Russian)
- 470303 Chinese languages
- 470304 Comparative language studies
- 470305 Early English languages
- 470306 English as a second language
- 470307 English language
- 470308 French language
- 470309 German language
- 470310 Iberian languages
- 470311 Indian languages

- 470312 Indonesian languages
- 470313 Italian language
- 470314 Japanese language
- 470315 Korean language
- 470316 Latin and classical Greek languages
- 470317 Middle Eastern languages
- 470318 Other Asian languages (excl. South-East Asian)
- 470319 Other European languages
- 470320 South-East Asian languages (excl. Indonesian)
- 470321 Translation and interpretation studies
- 470399 Language studies not elsewhere classified
- 4704 Linguistics**
- 470401 Applied linguistics and educational linguistics
- 470402 Child language acquisition
- 470403 Computational linguistics
- 470404 Corpus linguistics
- 470405 Discourse and pragmatics
- 470406 Historical, comparative and typological linguistics
- 470407 Language documentation and description
- 470408 Lexicography and semantics
- 470409 Linguistic structures (incl. phonology, morphology and syntax)
- 470410 Phonetics and speech science
- 470411 Sociolinguistics
- 470499 Linguistics not elsewhere classified
- 4705 Literary studies**
- 470501 African literature
- 470502 Australian literature (excl. Aboriginal and Torres Strait Islander literature)
- 470503 Book history
- 470504 British and Irish literature
- 470505 Central and Eastern European literature (incl. Russian)
- 470506 Children's literature
- 470507 Comparative and transnational literature
- 470508 Digital literature

- 470509 Ecocriticism
- 470510 Indian literature
- 470511 Indonesian literature
- 470512 Korean literature
- 470513 Latin and classical Greek literature
- 470514 Literary theory
- 470515 Literature in Chinese
- 470516 Literature in French
- 470517 Literature in German
- 470518 Literature in Italian
- 470519 Literature in Japanese
- 470520 Literature in Spanish and Portuguese
- 470521 Middle Eastern literature
- 470522 New Zealand literature (excl. Māori literature)
- 470523 North American literature
- 470524 Other Asian literature (excl. South-East Asian)
- 470525 Other European literature
- 470526 Other literatures in English
- 470527 Popular and genre literature
- 470528 Print culture
- 470529 South-East Asian literature (excl. Indonesian)
- 470530 Stylistics and textual analysis
- 470531 Young adult literature
- 470599 Literary studies not elsewhere classified
- 4799 Other language, communication and culture**
- 479999 Other language, communication and culture not elsewhere classified

## **48 LAW AND LEGAL STUDIES**

### **4801 Commercial law**

- 480101 Banking, finance and securities law
- 480102 Commercial law
- 480103 Corporations and associations law
- 480104 Labour law

- 480105 Not-for-profit law
- 480106 Taxation law
- 480199 Commercial law not elsewhere classified
- 4802 Environmental and resources law**
- 480201 Animal law
- 480202 Climate change law
- 480203 Environmental law
- 480204 Mining, energy and natural resources law
- 480299 Environmental and resources law not elsewhere classified
- 4803 International and comparative law**
- 480301 Asian and Pacific law
- 480302 Comparative law
- 480303 Conflict of laws (incl. private international law)
- 480304 European Union law
- 480305 International arbitration
- 480306 International criminal law
- 480307 International humanitarian and human rights law
- 480308 International trade and investment law
- 480309 Ocean law and governance
- 480310 Public international law
- 480311 Space, maritime and aviation law
- 480399 International and comparative law not elsewhere classified
- 4804 Law in context**
- 480401 Criminal law
- 480402 Family law
- 480403 Law and humanities
- 480404 Law and religion
- 480405 Law and society and socio-legal research
- 480406 Law reform
- 480407 Law, gender and sexuality (incl. feminist legal scholarship)
- 480408 Law, science and technology
- 480409 Legal education
- 480410 Legal theory, jurisprudence and legal interpretation

- 480411 Media and communication law
- 480412 Medical and health law
- 480413 Race, ethnicity and law
- 480414 Sports law
- 480499 Law in context not elsewhere classified
- 4805 Legal systems**
- 480501 Access to justice
- 480502 Civil procedure
- 480503 Criminal procedure
- 480504 Legal institutions (incl. courts and justice systems)
- 480505 Legal practice, lawyering and the legal profession
- 480506 Litigation, adjudication and dispute resolution
- 480507 Youth justice
- 480599 Legal systems not elsewhere classified
- 4806 Private law and civil obligations**
- 480601 Contract law
- 480602 Equity and trusts law
- 480603 Intellectual property law
- 480604 Property law (excl. intellectual property law)
- 480605 Tort law
- 480699 Private law and civil obligations not elsewhere classified
- 4807 Public law**
- 480701 Administrative law
- 480702 Constitutional law
- 480703 Domestic human rights law
- 480704 Migration, asylum and refugee law
- 480705 Military law and justice
- 480706 Privacy and data rights
- 480707 Welfare, insurance, disability and social security law
- 480799 Public law not elsewhere classified
- 4899 Other law and legal studies**
- 489999 Other law and legal studies not elsewhere classified

## **49 MATHEMATICAL SCIENCES**

### **4901 Applied mathematics**

- 490101 Approximation theory and asymptotic methods
- 490102 Biological mathematics
- 490103 Calculus of variations, mathematical aspects of systems theory and control theory
- 490104 Complex systems
- 490105 Dynamical systems in applications
- 490106 Financial mathematics
- 490107 Mathematical methods and special functions
- 490108 Operations research
- 490109 Theoretical and applied mechanics
- 490199 Applied mathematics not elsewhere classified

### **4902 Mathematical physics**

- 490201 Algebraic structures in mathematical physics
- 490202 Integrable systems (classical and quantum)
- 490203 Mathematical aspects of classical mechanics, quantum mechanics and quantum information theory
- 490204 Mathematical aspects of general relativity
- 490205 Mathematical aspects of quantum and conformal field theory, quantum gravity and string theory
- 490206 Statistical mechanics, physical combinatorics and mathematical aspects of condensed matter
- 490299 Mathematical physics not elsewhere classified

### **4903 Numerical and computational mathematics**

- 490301 Experimental mathematics
- 490302 Numerical analysis
- 490303 Numerical solution of differential and integral equations
- 490304 Optimisation
- 490399 Numerical and computational mathematics not elsewhere classified

### **4904 Pure mathematics**

- 490401 Algebra and number theory
- 490402 Algebraic and differential geometry
- 490403 Category theory, k theory, homological algebra
- 490404 Combinatorics and discrete mathematics (excl. physical combinatorics)
- 490405 Group theory and generalisations
- 490406 Lie groups, harmonic and Fourier analysis

- 490407 Mathematical logic, set theory, lattices and universal algebra
- 490408 Operator algebras and functional analysis
- 490409 Ordinary differential equations, difference equations and dynamical systems
- 490410 Partial differential equations
- 490411 Real and complex functions (incl. several variables)
- 490412 Topology
- 490499 Pure mathematics not elsewhere classified

**4905 Statistics**

- 490501 Applied statistics
- 490502 Biostatistics
- 490503 Computational statistics
- 490504 Forensic evaluation, inference and statistics
- 490505 Large and complex data theory
- 490506 Probability theory
- 490507 Spatial statistics
- 490508 Statistical data science
- 490509 Statistical theory
- 490510 Stochastic analysis and modelling
- 490511 Time series and spatial modelling
- 490599 Statistics not elsewhere classified

**4999 Other mathematical sciences**

- 499999 Other mathematical sciences not elsewhere classified

**50 PHILOSOPHY AND RELIGIOUS STUDIES**

**5001 Applied ethics**

- 500101 Bioethics
- 500102 Business ethics
- 500103 Ethical use of new technology
- 500104 Human rights and justice issues (excl. law)
- 500105 Legal ethics
- 500106 Medical ethics
- 500107 Professional ethics
- 500199 Applied ethics not elsewhere classified



**5002 History and philosophy of specific fields**

- 500201 History and philosophy of engineering and technology
- 500202 History and philosophy of law and justice
- 500203 History and philosophy of medicine
- 500204 History and philosophy of science
- 500205 History and philosophy of the humanities
- 500206 History and philosophy of the social sciences
- 500207 History of ideas
- 500208 History of philosophy
- 500299 History and philosophy of specific fields not elsewhere classified

**5003 Philosophy**

- 500301 Aesthetics
- 500302 Critical theory
- 500303 Decision theory
- 500304 Environmental philosophy
- 500305 Epistemology
- 500306 Ethical theory
- 500307 Hermeneutics
- 500308 Logic
- 500309 Metaphysics
- 500310 Phenomenology
- 500311 Philosophical psychology (incl. moral psychology and philosophy of action)
- 500312 Philosophy of cognition
- 500313 Philosophy of gender
- 500314 Philosophy of language
- 500315 Philosophy of mind (excl. cognition)
- 500316 Philosophy of religion
- 500317 Philosophy of science (excl. history and philosophy of specific fields)
- 500318 Philosophy of specific cultures (incl. comparative philosophy)
- 500319 Poststructuralism
- 500320 Psychoanalytic philosophy
- 500321 Social and political philosophy
- 500399 Philosophy not elsewhere classified

**5004 Religious studies**

- 500401 Christian studies
- 500402 Comparative religious studies
- 500403 Islamic studies
- 500404 Jewish studies
- 500405 Religion, society and culture
- 500406 Studies in eastern religious traditions
- 500407 Studies in religious traditions (excl. Eastern, Jewish, Christian and Islamic traditions)
- 500499 Religious studies not elsewhere classified

**5005 Theology**

- 500501 Theology
- 500599 Theology not elsewhere classified

**5099 Other philosophy and religious studies**

- 509999 Other philosophy and religious studies not elsewhere classified

**51 PHYSICAL SCIENCES****5101 Astronomical sciences**

- 510101 Astrobiology
- 510102 Astronomical instrumentation
- 510103 Cosmology and extragalactic astronomy
- 510104 Galactic astronomy
- 510105 General relativity and gravitational waves
- 510106 High energy astrophysics and galactic cosmic rays
- 510107 Planetary science (excl. solar system and planetary geology)
- 510108 Solar physics
- 510109 Stellar astronomy and planetary systems
- 510199 Astronomical sciences not elsewhere classified

**5102 Atomic, molecular and optical physics**

- 510201 Atomic and molecular physics
- 510202 Lasers and quantum electronics
- 510203 Nonlinear optics and spectroscopy
- 510204 Photonics, optoelectronics and optical communications
- 510205 Terahertz physics

510299 Atomic, molecular and optical physics not elsewhere classified

**5103 Classical physics**

510301 Acoustics and acoustical devices; waves

510302 Classical and physical optics

510303 Electrostatics and electrodynamics

510304 Thermodynamics and statistical physics

510399 Classical physics not elsewhere classified

**5104 Condensed matter physics**

510401 Condensed matter characterisation technique development

510402 Condensed matter imaging

510403 Condensed matter modelling and density functional theory

510404 Electronic and magnetic properties of condensed matter; superconductivity

510405 Soft condensed matter

510406 Structural properties of condensed matter

510407 Surface properties of condensed matter

510499 Condensed matter physics not elsewhere classified

**5105 Medical and biological physics**

510501 Biological physics

510502 Medical physics

510599 Medical and biological physics not elsewhere classified

**5106 Nuclear and plasma physics**

510601 Nuclear physics

510602 Plasma physics; fusion plasmas; electrical discharges

510699 Nuclear and plasma physics not elsewhere classified

**5107 Particle and high energy physics**

510701 Astroparticle physics and particle cosmology

510702 Field theory and string theory

510703 Particle physics

510799 Particle and high energy physics not elsewhere classified

**5108 Quantum physics**

510801 Degenerate quantum gases and atom optics

510802 Foundations of quantum mechanics

510803 Quantum information, computation and communication

510804 Quantum optics and quantum optomechanics

510805 Quantum technologies

510899 Quantum physics not elsewhere classified

**5109 Space sciences**

510901 Astrodynamics and space situational awareness

510902 Heliophysics and space weather

510903 Mesospheric, thermospheric, ionospheric and magnetospheric physics

510904 Solar system energetic particles

510905 Solar system planetary science (excl. planetary geology)

510906 Space instrumentation

510999 Space sciences not elsewhere classified

**5110 Synchrotrons and accelerators**

511001 Accelerators

511002 Instruments and techniques

511003 Synchrotrons

511099 Synchrotrons and accelerators not elsewhere classified

**5199 Other physical sciences**

519901 Complex physical systems

519999 Other physical sciences not elsewhere classified

**52 PSYCHOLOGY**

**5201 Applied and developmental psychology**

520101 Child and adolescent development

520102 Educational psychology

520103 Forensic psychology

520104 Industrial and organisational psychology (incl. human factors)

520105 Psychological methodology, design and analysis

520106 Psychology of ageing

520107 Sport and exercise psychology

520108 Testing, assessment and psychometrics

520199 Applied and developmental psychology not elsewhere classified

**5202 Biological psychology**

520201 Behavioural genetics

520202 Behavioural neuroscience  
520203 Cognitive neuroscience  
520204 Evolutionary psychological studies  
520205 Psychopharmacology  
520206 Psychophysiology  
520207 Social and affective neuroscience  
520299 Biological psychology not elsewhere classified

**5203 Clinical and health psychology**

520301 Clinical neuropsychology  
520302 Clinical psychology  
520303 Counselling psychology  
520304 Health psychology  
520399 Clinical and health psychology not elsewhere classified

**5204 Cognitive and computational psychology**

520401 Cognition  
520402 Decision making  
520403 Learning, motivation and emotion  
520404 Memory and attention  
520405 Psycholinguistics (incl. speech production and comprehension)  
520406 Sensory processes, perception and performance  
520499 Cognitive and computational psychology not elsewhere classified

**5205 Social and personality psychology**

520501 Community psychology  
520502 Gender psychology  
520503 Personality and individual differences  
520504 Psychology of religion  
520505 Social psychology  
520599 Social and personality psychology not elsewhere classified

**5299 Other psychology**

529999 Other psychology not elsewhere classified