

SECTION 2 – STUDY AREAS

This section gives a brief description of each of the following study areas:

- ▶ Built Environment and Design.
- ▶ Business and Tourism.
- ▶ Creative and Performing Arts.
- ▶ Education.
- ▶ Engineering and Technology.
- ▶ Health and Recreation.
- ▶ Humanities and Social Sciences.
- ▶ Information Technology.
- ▶ Law.
- ▶ Primary Industries and Environment.
- ▶ Sciences.

The prerequisites for courses in each of these study areas are outlined in section 3: Course Entry Requirements.



▶ Built environment and design

Architectural drafting

- ▶ Produce drawings from an architect's sketch plans
- ▶ Work out material and labour costs, and completion dates
- ▶ Inspect building sites and supervise a construction site's progress
- ▶ Design buildings and manage construction
- ▶ Organise construction process and building development activities
- ▶ Manage building construction by having an understanding of building technology and construction management, economics, law and the use of specialist workers

Architecture

- ▶ Design buildings and other structures, and prepare drawings including safety regulations, legal requirements, building materials and interior fittings
- ▶ Meet with builders, clients and planning authorities, send out contracts and coordinate construction

Building surveying and inspecting

- ▶ Enforce building and construction laws and regulations
- ▶ Inspect buildings to ensure safety standards, building regulations and codes of practice are being met, issue building permits, and advise on building matters

Geographic Information Systems (GIS)

- ▶ Create geographically referenced data layers for land use planning, mapping, surveying, transportation and infrastructure planning and real estate analysis

Industrial design

- ▶ Design objects for personal and commercial use that are reliable, safe and comfortable to use
- ▶ Analyse a product's demand

Interior design

- ▶ Design a building's interior, exhibition's or commercial display's layout and furnishing
- ▶ Organise material supplies, provide cost estimates, inspect work progress and maintain time and quality controls on site

Landscape architecture

- ▶ Apply ecological planning and design principles to improve an external space's appearance
- ▶ Work on projects such as planning urban plazas, parks and recreation centres, highways and streetscapes, mined land, coastal planning and heritage

Property economics

- ▶ Manage property assets, including a property development, sale, valuation and management

Quantity surveying

- ▶ Monitor building projects from design through to completion
- ▶ Work out material, labour, equipment costs for tender documents and determine payment progress

Urban, regional and town planning

- ▶ Develop land use plans that ensure spaces are healthy
- ▶ Interact with governments, developers and community groups to manage urban and rural areas

▶ Business and tourism

▶ Business and Commerce

Accounting

- ▶ Provide financial services including account management, taxation and auditing
- ▶ Prepare financial reports for banks, foreign exchange services and other financial services

Actuarial services

- ▶ Work out future cash flows
- ▶ Make projections on financial plans and risk management
- ▶ Design financial policies, investment plans and strategic financial plans

Advertising

- ▶ Coordinate advertising campaigns using print, radio and television to encourage people to buy products or services
- ▶ Research products, marketing goals and target markets

Business

- ▶ Learn about a range of areas including accounting, economics, strategy, finance, law, e-commerce and human resources

Commerce

- ▶ Explore the impacts of political, social, cultural and technological decisions on an economy
- ▶ Learn about factors that drive economic behaviour

E-commerce

- ▶ Manage transactions through the internet, email and other electronic media
- ▶ Manage an organisation's electronic commerce system

Economics

- ▶ Research economic trends on issues such as taxation, employment, imports and exports, and interest and exchange rates
- ▶ Study how people, companies and governments act in relation to the supply and demand of goods and services
- ▶ Gain an understanding of an economic system's parts

Environmental economics

- ▶ Study a project's environmental impact and advise on environmental management regulations

Finance and banking

- ▶ Use business skills in banks, credit unions, building societies, insurance, superannuation, foreign exchange, stockbroking and financial planning

Financial management

- ▶ Evaluate an organisation's profits and suggest ways to increase productivity and outputs
- ▶ Determine the value of an organisation's facilities and services, and provide investment advice

Financial planning

- ▶ Advise on aspects of personal financial planning including investment, lifestyle and financial goals, insurance, social security, superannuation and retirement planning, estate planning and taxation
- ▶ Build wealth for individuals to achieve financial security

Government/public policy

- ▶ Cover issues such as Australian political institutions, political theory, public sector resource management, public policy, government-business relations and public project evaluation

Human resource management

- ▶ Work with an organisation's staff across areas including recruitment, training, development, organisational analysis, occupational health and safety and industrial relations

Industrial relations

- ▶ Advise on legal issues and policies, represent organisations in industrial settlements, advise on enterprise based agreements
- ▶ Solve disputes between employers and staff such as pay issues and employment conditions
- ▶ Implement workplace policies that ensure industry and statutory standards are met

Information systems

- ▶ Design and manage information systems to maximise organisational effectiveness

International business

- ▶ Combine business skills with an Asian, Pacific or European focus
- ▶ Develop skills in communication, research and problem solving within different political and cultural settings

**Logistics**

- ▶ Manage the flow and storage of goods and other resources

International logistics

- ▶ Handle freight, global buying, customs broking and cargo regulatory systems both in Australia and overseas

Management

- ▶ Perform tasks such as planning, decision-making, organising, motivating and controlling the organisational resources
- ▶ Manage the effective production and marketing of an organisation's resources

Maritime logistics

- ▶ Combine practical maritime knowledge with theoretical business skills, concentrating on the shipping industry
- ▶ Work in the maritime transport industry or in fisheries, aquaculture, marine and coastal parks, environment or conservation

Marketing

- ▶ Develop products and services that target specific markets
- ▶ Analyse and research markets to increase a company's sales

Office administration

- ▶ Use a range of skills related to the office environment including accounting, communication, computing, office management and public administration

Organisational behaviour

- ▶ Use psychology to produce an efficient and effective workforce

Organisational communication

- ▶ Improve an organisation's communication practices, manage change and produce reports, manuals, tenders, brochures and newsletters

Property management

- ▶ Inspect rental properties, arrange maintenance and repair, collect bond money, draw up lease agreements and advertise vacant properties for lease

Property marketing

- ▶ Advertise and promote properties for sale or rent

Property valuation

- ▶ Estimate land and buildings values as a basis for sales, taxes, banking transactions and insurance

Public relations

- ▶ Educate the public about particular issues, and develop a positive identity for an organisation
- ▶ Advise what impacts an organisation's strategic plans will have on different groups in society
- ▶ Talk with the media, organise promotional material and events, and develop strategic plans for an organisation's long-term goals

Real estate and development

- ▶ Study the commercial, economic and legal issues around property management, valuation and marketing

Retail

- ▶ Combine business skills with retail-specific subjects such as buying, merchandising, promotions or customer service, sales management, marketing and human resource management

Social media and online-community management

- ▶ Implement social media campaigns, including online editorials, content management, strategic development, monitoring and reporting
- ▶ Talk with customers, create interest, increase traffic and improve brand awareness

Work health and safety

- ▶ Maintain work health and safety programs

▶ Hospitality, Tourism and Travel**Catering/food and service management**

- ▶ Plan catering operations, and food and drink service in hotels, motels and similar operations

Club management

- ▶ Manage clubs and casinos, and organise large-scale conventions and events

Event management

- ▶ Organise events such as conferences and festivals

Hospitality

- ▶ Develop managerial skills to coordinate hospitality operations such as food and gaming, kitchen operations and franchising

Hotel management

- ▶ Work as an accommodation manager, entertainment coordinator, housekeeper, financial controller or front office manager

Leisure studies

- ▶ Design experiences that encourage leisure participation, discover the barriers that limit participation, and learn how people's leisure needs change during their lives

Recreation and leisure management

- ▶ Coordinate recreation activities for the benefit of the community

Sport tourism management

- ▶ Attract events and tourists to cities, educate on the importance of good health through sports activity and the increased mobility of sports minded and travel minded people

Tour management

- ▶ Provide information about places of interest and local attractions to visitors

Tourism and leisure studies

- ▶ Examine the tourism and leisure industry, and plan leisure programs

Tourist information management

- ▶ Offer accommodation and travel suggestions to tourists, promote tourism and assess tourist opportunities

Travel management

- ▶ Make travel arrangements for tourists

▶ Creative and performing arts

Animation

- ▶ Create drawn and painted animation, plus computer and 2D/3D animation with the use of puppets and other experimental media

Camera operation

- ▶ Set up, position and operate camera equipment in film and television studios or on location

Cinematography

- ▶ Direct camera and lighting crews working on films and make artistic and technical decisions about the images

Creative writing

- ▶ Study expressive writing including popular fiction, contemporary writing, and culturally specific writing styles
- ▶ Write poetry, novels, short stories, biographies, plays, and scripts for film, radio, television and other electronic media

Dance

- ▶ Study a variety of performance styles
- ▶ Learn theory for work in dance companies, freelance choreography, dance research, teaching, dance therapy and community dance work

Design

- ▶ Use visual arts knowledge to produce creative designs
- ▶ Create designs by expressing individual thoughts and feelings

Drama and theatre

- ▶ Work as a drama teacher, arts administrator, playwright, director, stage manager, stage designer, drama therapist, community arts officer, actor or theatre technician

Editing

- ▶ Correct publications and manage the production of printed, online, music, video or image publications

**Fashion design**

- ▶ Create and develop original designs, make patterns and select materials and colours to be used for garments and accessories
- ▶ Coordinate the manufacture of garments

Film arts

- ▶ Develop skills in creative disciplines of popular media such as animation, film and television production, photography or screen production

Games design

- ▶ Understand the structures and systems that are used in games development for multiple end formats
- ▶ Use up-to-date digital technologies to study programming, game design and philosophies, animation, modelling, motion capture, sound and narrative

Graphic design

- ▶ Design artwork and publications, including digital and multimedia artwork, signage, packaging, exhibitions and corporate identity

Illustrating

- ▶ Create drawings and designs for advertisements, magazines, books, newspapers, multimedia, film, television, scientific publications and websites

Interior design

- ▶ Plan and design the interiors of living spaces
- ▶ Advise on structural alterations to building interiors, and coordinate the implementation of designs from start to finish

Lighting

- ▶ Control lighting equipment in studios or on sets during stage performances, television programs or film productions

Multimedia

- ▶ Learn the computer imaging/graphics that influence the design of computer software, image creation and sound production
- ▶ Create graphic images, sound, text and videos for multimedia programs

Music

- ▶ Specialise in performance, composition, music technology/production and music therapy

Photography and photo imaging

- ▶ Use camera and lighting equipment to record images

Photojournalism

- ▶ Take photos for stories and news

Production

- ▶ Oversee the production of radio, film, television and theatre shows

Scriptwriting

- ▶ Write screenplays for films, television programs, video games or multimedia

Sound engineering

- ▶ Operate technical equipment to amplify, mix, record, enhance or reproduce sound for performing arts and artists

Textile design

- ▶ Create fabric designs and patterns using digital processes, screen printing, embroidery and weaving

Three-dimensional design

- ▶ Design sign systems, furniture, exhibitions for commercial purposes, lighting, packaging and the environment

Visual/fine art

- ▶ Specialise in carving, ceramics, drawing, gold and silver smithing, illustration, multimedia, painting, printmaking or sculpture

▶ Education**Education**

- ▶ Teach all levels of education including primary, secondary, special education and tertiary
- ▶ Undertake in-depth study of specialist secondary education topics
- ▶ Specialise in early childhood studies or in childcare centres, preschools and for family day care

Government policies and employment requirements for teaching

- ▶ State and Commonwealth legislation requires background, health and criminal record screening of applicants for employment involving contact with children, the inform and the aged. This includes unpaid work performed by students in the course of their studies. A criminal record check is undertaken as part of the application for registration as a teacher in Queensland and employment with the New South Wales Department of Education and Training.
- ▶ employment depends on gaining registration as a teacher:
 - in Queensland, through the Queensland College of Teachers
 - in New South Wales, through the Board of Studies, Teaching and Educational Standards
- ▶ In addition to the subject prerequisites needed for entry to their education course, teacher training students in Queensland must meet minimum standards of literacy as required by the Queensland College of Teachers at the start and completion of their studies.

- ▶ The NSW Board of Studies, Teaching and Educational Standards is currently reviewing entry requirements. For updated information on prerequisites for NSW courses, contact the institution where you want to study.

**▶ Engineering and technology****Aeronautical and aerospace engineering**

- ▶ Design and develop aircraft and satellite systems
- ▶ Maintain flight vehicles and their communication systems and space systems, while exercising strict safety and environmental controls

Agricultural engineering

- ▶ Develop agricultural production systems, conserve and manage soil, water and forest resources, minimise agriculture's environmental impact and improve the quality of primary products

Biomedical engineering

- ▶ Apply engineering to medicine and life sciences, such as cell and tissue engineering, metabolic, medical imaging, instrumentation
- ▶ Use technology to collect, organise and analyse biological data

Chemical engineering

- ▶ Design and manage industrial processes in which materials undergo physical, chemical or biochemical changes

**Civil engineering**

- ▶ Plan and maintain structures such as large buildings, roads, bridges, tunnels, railways, airports or sewerage systems

Coastal engineering

- ▶ Combine aspects of civil engineering, oceanography and marine geology to combat coastal erosion and manage coastal zones

Computer systems engineering

- ▶ Develop computer technology, such as microprocessors, machine-level programming, computers and communication networks

Electrical engineering

- ▶ Maintain systems that generate and distribute electricity, such as generators, power stations, appliances and signalling devices

Electronic systems engineering

- ▶ Develop electronic communication networks, computer systems and processing, industrial electronics and navigation systems

Environmental engineering

- ▶ Manage projects associated with pollution and waste engineering, particularly liquid and solid wastes, and air and noise pollution
- ▶ Develop technologies to minimise the environmental impact of engineering projects and conserve the use of natural resources

Infomechatronic engineering

- ▶ Develop machines to provide new solutions to problems in the manufacturing and process industries, primary production and mining, and the service and health industries

Instrumentation and control engineering

- ▶ Install and maintain physical and chemical control system equipment

Manufacturing and materials engineering

- ▶ Learn how to use and make metals and materials including ceramics and plastics, and design new products using new materials
- ▶ Research and develop new methods for processing, shaping, improving and making materials

Marine surveying

- ▶ Inspect cargo, ships and equipment, and investigate marine accidents for shipping companies, insurance organisations and other maritime-related industries

Maritime/marine engineering

- ▶ Install, operate and maintain machinery on board ships and on off-shore systems, ensuring engines and ship-related machinery are operating efficiently
- ▶ Record and analyse data from engine room instruments
- ▶ Understand computer controlled processes in automatic control systems

Mechanical engineering

- ▶ Operate machines for transport, manufacturing, refrigeration, aviation, air conditioning and electric power sectors
- ▶ Coordinate production plants and factory production

Mechatronic engineering

- ▶ Design and create machinery that integrates with electronics and computer control
- ▶ Use cutting edge technologies in applications such as intelligent machines, smart devices and robotics

Medical engineering

- ▶ Design and assess medical, surgical, rehabilitation and sports equipment, and provide specialist advice to medical staff

Microelectronic engineering

- ▶ Develop electronic chips, circuits, microcomputer-based products and systems, computers and related systems
- ▶ Create intelligent artefacts

Minerals process engineering

- ▶ Research new technologies and techniques to produce refined metals and minerals from crude ores using environmentally acceptable methods
- ▶ Design and develop the entire production process and coordinate the operation

Mining engineering

- ▶ Survey ore deposits, evaluate their worth, study their overall structure and assess the most economical and safe methods for extracting the ore
- ▶ Design the installations required and supervise the construction and operation of mining enterprises

Multimedia telecommunication engineering

- ▶ Fix multimedia data communication issues, especially for sound and video

Naval architecture and engineering

- ▶ Design and maintain boats and floating structures
- ▶ Develop a ship's design and specify the building materials required

Ocean engineering

- ▶ Design off-shore structures by using knowledge of physical processes in the oceans and their effect on constructed marine systems
- ▶ Research and develop systems and technologies that withstand, without negatively affecting, the natural environment

Renewable energy engineering

- ▶ Research renewable natural resources including solar, rain, wind, hydro, wave, tidal and geothermal heat
- ▶ Design and implement renewable energy technology

Software engineering

- ▶ Develop and maintain high quality software and large software systems such as business systems, management tools, office software

Surveying

- ▶ Collect, assess and report on particular land and geographic information

Telecommunications engineering

- ▶ Design and monitor telecommunications networks and broadcast equipment such as satellite, telephone, optical fibres and computer systems

▶ Health and recreation**Acupuncture**

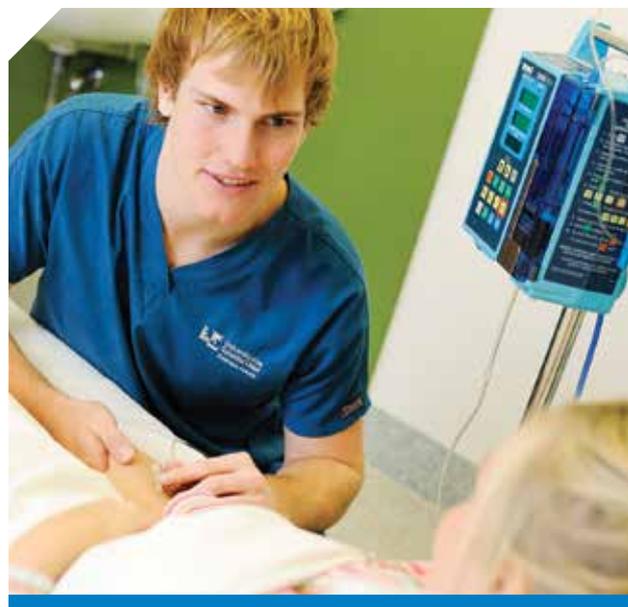
- ▶ Influence acupuncture points with needles, moxibustion (a heat treatment that warms the acupuncture point with a slow smouldering herb call moxa) or finger pressure

Aromatherapy

- ▶ Blend oils specifically for each individual and suggest methods of use such as massage, inhalation or water immersion, to enhance wellbeing

Beauty therapy

- ▶ Use knowledge of anatomy, physiology, skin disorders, cosmetic chemistry, health and nutrition to perform treatments, analyse skin and body problems, and give advice on treatments

**Biomedical science**

- ▶ Focus on the biological aspects of medical science and find jobs in applied health sciences or biomedical research

Chiropractic

- ▶ Diagnose, treat, rehabilitate and prevent pain and disability of the spine and extremities

Dental hygiene

- ▶ Undertake a range of duties including teeth cleaning and scaling, and education in oral health care and hygiene

Dental technology

- ▶ Construct and repair dental appliances such as dentures, crowns and bridges

Dental therapy

- ▶ Provide a range of oral health services to schoolchildren in government dental clinics and the broader community

Dentistry

- ▶ Treat oral diseases, injuries and abnormalities of the mouth, including operations such as fillings and crowns, and provide preventive oral health care education

Dietetics

- ▶ Apply specialist scientific knowledge in food and nutrition, dietary design and management of food services to help both the sick and the healthy community

Environmental health

- ▶ Promote safe hygiene, health and good environmental practices, investigate food complaints, monitor pollution levels and develop community support systems

Exercise science

- ▶ Assess, prescribe and evaluate exercise to improve overall and specific body functions

Fitness

- ▶ Work with allied health staff in fitness facilities such as gyms and aquatic centres

Health information

- ▶ Organise and administer health information systems in hospitals and health services

Health promotion and health education

- ▶ Work with community services, educators and governments to improve public awareness of health-related issues

Health services

- ▶ Coordinate activities that provide health services, and seek to improve services, facilities and funding arrangements in the health industry

Herbal medicine

- ▶ Use medicines made from whole plants to promote health, treat or prevent illness and restore balance in disease

Homeopathy

- ▶ Diagnose patient health problems, suggest herbal and mineral remedy treatments and cures, and dispense these prescribed cures

Indigenous health

- ▶ Plan and manage programs that meet the health needs of Indigenous Australian communities
- ▶ Understand the interaction between Indigenous cultures and public health strategies, with an emphasis on health promotion and primary health care

Massage therapy

- ▶ Improve the functioning of joints and muscles, and relieve mental and physical fatigue, treat soft tissue dysfunction, alleviate pain and enhance movement and function

Medical laboratory techniques

- ▶ Work with doctors, scientists and laboratory assistants to conduct laboratory tests that diagnose and treat diseases and disorders

Medical radiation technology

- ▶ Use medical imaging technology or radiotherapy technology that helps diagnose and manage disease and injury

Medicine and surgery

- ▶ Examine, diagnose and treat injuries, diseases and other health complaints, and prescribe medications and treatment to promote or restore good health

Midwifery

- ▶ Work with women through pregnancy, labour, childbirth and the postnatal period

Musculoskeletal therapy

- ▶ Address skeletal and muscular conditions through a range of measures such as exercise, diet, nutrition and posture

Naturopathy

- ▶ Restore and maintain patient health by emphasising nature's inherent self-healing process via education and use of natural therapeutics

Nursing

- ▶ Help individuals to achieve optimal health, cope with ill health and maintain their place in society

Nutrition

- ▶ Advise clients on the relationship between diet and health at both individual and group levels to foster healthy lifestyles

Occupational health and safety

- ▶ Identify hazards, assess risks, and design and implement programs such as emergency procedures, safety manuals, safe workplace practices and first aid

Occupational therapy

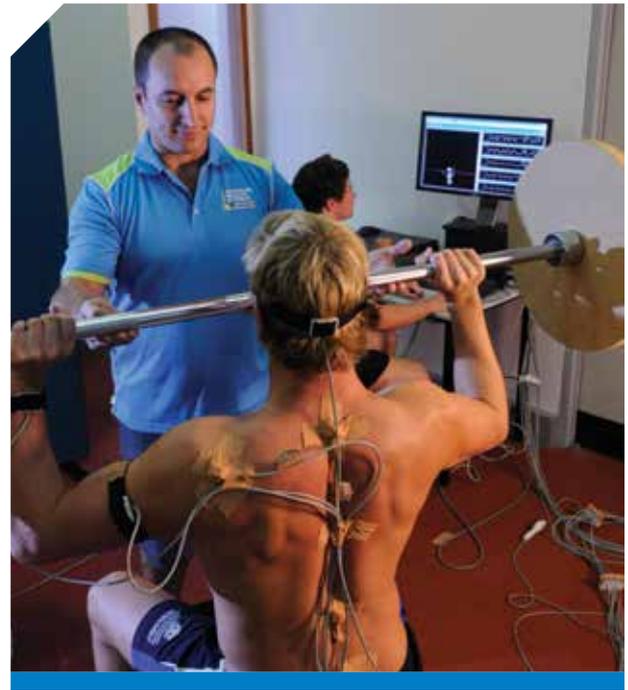
- ▶ Work with clients to overcome injury or illness, psychological or emotional difficulties, the effects of ageing or other limitations on everyday activities

Optometry

- ▶ Examine eyes, diagnose visual and other eye problems, treat eye diseases and abnormalities, and prescribe lenses, other optical aids or therapy

Osteopathy

- ▶ Address the underlying structural imbalances that can lead to discomfort and pain, and which limit healing from disease and injury

**Paramedic science**

- ▶ Provide pre-hospital intensive and emergency care, while working in teams alongside other emergency services personnel such as fire fighters and police

Pedorthics

- ▶ Improve human movement, in particular gait and foot function
- ▶ Conduct assessments and manufacture corrective footwear, orthoses or other supportive devices to address feet and mobility

Pharmacy

- ▶ Advise on medication's best use, distribution and storage
- ▶ Prepare medication, give advice about health, research and develop medicines, advise on government controls and regulations regarding medication supply and manufacture

Physiotherapy

- ▶ Help people who have physical disorders, pain or function loss because of injury, disease or other medical conditions

Podiatry

- ▶ Educate the community on the prevention, diagnosis and treatment of foot and lower limb disorders, injuries and disease

Public health

- ▶ Study the general health and community wellbeing promotions
- ▶ Be involved in immunisation campaigns and education programs on issues including road safety, substance abuse, disease prevention, hygiene, food safety and obesity

Recreation management

- ▶ Specialise in sports coaching, recreation management or fitness
- ▶ Emphasise the importance of sport and leisure to business, communication and human relations

Reflexology

- ▶ Stimulate the body's own natural healing response by adding pressure to reflex points in the feet, hands and ears

Seniors and elder healthcare

- ▶ Help the elderly maintain wellbeing, attend to injuries or illness, find suitable accommodation

Speech pathology

- ▶ Treat people who have communication disorders with their voice, fluency, hearing, speech and language or who have oral functioning difficulties such as eating or swallowing

Sport development

- ▶ Develop and promote health, fitness, sport and recreation activities throughout the community
- ▶ Study basic sport and exercise science and extend this to sports marketing and management, physical activity promotion, sports psychology, nutrition and sport coaching

▶ Humanities and social sciences

▶ Humanities

Architectural studies

- ▶ Examine architectural and art styles and fashions including the physical, social, cultural and political influences shaping the built environment through history

Art history

- ▶ Review visual arts, sculpture and architecture in specific periods, with attention to the historical development of individual artists, techniques and trends

Classics and ancient history

- ▶ Study history and civilisation of ancient Greece, Rome, other Mediterranean cultures and the ancient Near East

Communication studies

- ▶ Review human communication theories at the interpersonal, organisational and mass communication levels and communication skills development

English studies

- ▶ Specialise in literature, cultural studies and communication, linguistics, writing, medieval and renaissance studies

Film and media studies

- ▶ Understand literature and the mass media from a social, political and historical point of view

History

- ▶ Study continuity and change over time including special areas such as modern history and international relations

Journalism

- ▶ Focus on journalistic techniques, understand the history and press development, and prepare for a range of media including print, radio, film and television



Languages and linguistics

- ▶ Specialise in one or more languages, or study the science of language

Media production

- ▶ Gain hands-on experience in radio, film and video production

Organisational communication

- ▶ Work with organisations to improve communication practices, manage change, plan communication strategies, and produce reports, brochures and newsletters

Philosophy

- ▶ Study fundamental beliefs. Studies look at morals, politics, religion and the social sciences, logic and the philosophy of language

Religious studies

- ▶ Examine general and comparative religion, specific religious traditions, languages and modern studies involving philosophy and the social sciences

Theology

- ▶ Study religious doctrines and their use by the community on both a personal and interpersonal scale

▶ Interdisciplinary studies

American studies

- ▶ Focus on American literature, history, culture and politics

Asian studies

- ▶ Explore Asia's cultures, values, social organisations, languages and literature

Australian studies

- ▶ Analyse Australian culture, society and history, and compare these with those of other countries

Cognitive science

- ▶ Study the brain's cognitive processes and their effect on behaviour including perception, language, learning, memory, thought and comprehension
- ▶ Analyse and research the brain's problem-solving, reasoning and deductive abilities

Comparative literature and history studies

- ▶ Examine literature under the conditions in which it was written

Contemporary European studies

- ▶ Explore the major issues confronting Europe at the end of the twentieth century

Contemporary studies

- ▶ Study the key forces for change in society to understand and prepare for future developments

Heritage and environmental tourism

- ▶ Review legislative, policy and practical issues relating to the protection and management of cultural, built and natural environments and tourism issues

Indigenous Australian studies

- ▶ Examine aspects of Indigenous Australian societies, cultures and lifestyles, and the contemporary issues affecting Indigenous Australians

Library information studies

- ▶ Operate recorded material systems, and acquire, circulate and maintain library materials

Peace studies

- ▶ Study post-conflict recovery processes including peacekeeping, non-violent action issues for reconciliation, and conflict resolution

▶ Social Sciences

Anthropology

- ▶ Explore the origins and development of human societies and culture by comparing communities.

Applied ethics

- ▶ Address contemporary moral issues rising out of societal change

Archaeology

- ▶ Discover the scientific and cultural study of prehistoric and historic civilisations, and reconstruct their technologies, adaptations and interactions

Behavioural sciences

- ▶ Explore aspects of human behaviour in a variety of environments

Chaplaincy

- ▶ Help meet spiritual, religious and ethical needs in practical and pastoral ways

Community welfare and human services

- ▶ Analyse social issues in a community environment and implement procedures to support individuals and groups to overcome difficulties and life changes

Counselling

- ▶ Foster wellbeing through personal growth, assistance after grief and loss, and support for people resolving crises and life problems

Geography

- ▶ Study environmental, urban, rural, economic, social and political issues

Government/public policy

- ▶ Examine governments including Australian political institutions and Asian governments, political ideas, modern political ideologies, and public administration and administrative theory

Organisational behaviour

- ▶ Apply psychology in the workplace to produce an efficient and effective workforce working in a safe and motivated environment

▶ Information Technology**Communication technology**

- ▶ Cover the hardware and software protocols for different communication media, and software for building secure applications

Computer science

- ▶ Study programming languages, computing and computing systems, including information structure and software design

Computer systems engineering

- ▶ Develop computer technology, including hardware and software such as microprocessors, machine-level programming, networks, communication infrastructures and control systems

Information environments

- ▶ Design network systems that groups use to help an organisation operate properly
- ▶ Ensure staff have access to needed information, and allow distributed groups to work together and communicate effectively

Information management/science

- ▶ Plan organisational information systems that cope with diverse information needs, manage and rationalise information processes
- ▶ Organise information from any source and ensure the cost effectiveness of information technology

Information systems

- ▶ Manage effective, integrated information systems for organisations. Learn database design and management, and understand the environment in which organisations operate

Interactive media and game development

- ▶ Combine advanced animation techniques and computer programming skills to create interactive design, video games, computer games, new digital media, films and virtual reality

Network security

- ▶ Manage computing and networking devices to allow reliable, private and confidential communication for sharing of data and resources
- ▶ Understand computer system operation, administration tools, security techniques, resource management, and security administration and policy

Psychology

- ▶ Study behaviour and mental processes to solve problems in health and education

Social work

- ▶ Help with social problems such as poverty, substance abuse, homelessness, conflict, discrimination and inequality

Sociology

- ▶ Examine the economy, social institutions, education, family, industrial relations, political system, and culture in contemporary society

Youth studies

- ▶ Consider the sociological, psychological and cultural worlds of young people. Work with children and young people

**Networking**

- ▶ Maintain computing devices using wired and wireless networks and networking devices, including networks linking, developing new systems and providing services on networks

Software engineering

- ▶ Maintain high quality software such as operating systems, communications software, and utility programs and applications

User experience

- ▶ Evaluate user interfaces, graphics, information architecture, usability, accessibility and human-computer interaction to improve customer interactions and the user experience

▶ Law**Barrister**

- ▶ Perform the majority of advocacy work in the superior courts and provide specialist advice

Criminology and criminal justice/justice administration

- ▶ Examine crime and the criminal justice system, including police studies, public security, corrections, crime analysis and prevention and youth justice

Law

- ▶ Gain an awareness of the common law system, Acts of Parliament, court decisions, and general principles of law
- ▶ Use and interpret words and terms, find the law by intelligent and informed reading, think through legal issues, and express and communicate legal ideas in speech and writing

Paralegal/legal studies

- ▶ Study the legal system at a level not leading to admission as a barrister or solicitor

Solicitor

- ▶ Draw up agreements, contracts and other legal documents, act as executors for estates of deceased persons and advise clients about the present state of the law in particular areas
- ▶ Bring a case to court, and argue a case in court or 'brief' a barrister to appear on their client's behalf

▶ Primary industries and environment

Agribusiness

- ▶ Apply business skills to agricultural settings, including the manufacture of farm supplies, farm production processes, and the storage, processing and marketing of farm commodities

Agricultural economics

- ▶ Analyse resource management, marketing, international trade and government policy in the primary sectors, including agriculture and national resource industries

Agricultural or rural science

- ▶ Study the physical, biological, technological, environmental and social factors affecting the production, processing, marketing, and distribution of food and fibre
- ▶ Develop the research skills needed for problem-solving in rural industries and environmental areas



Agronomy

- ▶ Examine the efficient and sustainable use of broad acre food and fibre crops such as wheat or cotton
- ▶ Analyse their environmental impact and the use of native and introduced plants for conservation purposes and animal food

Animal studies

- ▶ Study the health, breeding, nutrition, and production aspects of domestic animals, the use of animals for recreational purposes and the biology of Australia's unique wildlife

Aquaculture

- ▶ Study commercial aquatic plant and animal farming practices

Ecotourism

- ▶ Explore the management and recreational use of natural areas, modified landscapes, wildlife habitats, and places of ecological interest
- ▶ Learn specific environmental regulations and the environmental impact of tourism on different ecosystems

Environmental management

- ▶ Manage the interface between business, management and environmental science

Environmental modelling

- ▶ Make predictions of environmental systems, especially where environmental impacts are assessed
- ▶ Construct models using mathematical, statistical and simulation techniques as well as computer systems, then manipulate the models to address hypothetical outcomes

Environmental science

- ▶ Study an area concerned with the chemical, physical and biological aspects of the environment and its relationship with humans

Equine studies

- ▶ Follow a career in businesses and activities that involve horses, including veterinary assistant, assistant or manager of a horse stud, horse trainer or horse riding instructor

Fisheries

- ▶ Study marine organisms and their environment, fish populations, the catch's management and behaviour, or the engineering and ecological aspects of catching systems

Food technology

- ▶ Examine the management of foods from raw harvest, through production, storage and distribution to the consumers
- ▶ Optimise food quality and quantity, with safety and nutritional value of foods as a primary objective

Forestry

- ▶ Manage plantation and native forests as sustainable resources for purposes including timber production, tourism, nature conservation and bee-keeping

Horticultural technology

- ▶ Study the production of intensively managed crops such as fruits, vegetables, nuts, spices, cut flowers, foliage and nursery crops
- ▶ Develop and manage parks and recreation facilities, with both outdoor and indoor landscapes

Land/water resource science

- ▶ Analyse, manage and conserve natural resources
- ▶ Manage and conserve aquatic resources
- ▶ Cover the sustainable development, conservation and management of coastal or aquatic resources
- ▶ Study how natural ecosystems can be used for food, relaxation and recreation

Marine science

- ▶ Study marine aquaculture, biology, ecology, economics, engineering, geology and oceanography

Natural resource economics

- ▶ Use economic principles and techniques to analyse regional, national and global issues related to the use of natural resources

Nature conservation and wildlife management

- ▶ Manage landscapes and wildlife within a social, economic and scientific framework

Plant/crop protection

- ▶ Fight the insects, weeds and plant diseases that affect food and fibre production

Rural management

- ▶ Undertake professional, technologically-based training in agriculture or horticulture that is strongly management-oriented

Rural technology

- ▶ Combine knowledge of animal and plant production, agricultural mechanisation, soil and water conservation, and plant protection with their economic and environmental aspects

Soil science

- ▶ Focus on the scientific study of soil systems, including testing, classifying and mapping of soil and its surrounding area
- ▶ Conserve and manage soil in agricultural and urban settings and the natural environment, and develop and implement research programs to ensure the preservation of soil systems

Sustainability studies

- ▶ Identify and implement the best solutions for tackling problems in a socially just and environmentally sensitive manner, while maintaining acceptable standards of living

▶ Sciences

▶ Aviation and Nautical Sciences

Aviation

- ▶ Work as a pilot, flight instructor or in other aerial services including agricultural spraying, aerial surveying and photography
- ▶ Develop knowledge of the business aspects of the air transport industry including airport management and managing aircrew resources

Nautical science

- ▶ Study the knowledge needed for a deck officer in a merchant navy environment, including the fields of navigation, ship management, marine surveying and nautical knowledge

▶ Biological Sciences

Anatomy

- ▶ Examine the structures of living animals and plants, or any of their parts

Biochemistry

- ▶ Study the chemical processes that occur in living organisms including the properties of the chemical constituents of living matter and of compounds produced by living matter

Biology

- ▶ Study and research living things and their relationships to one another, as well as to the physical environment. Biology is divided into zoology and botany

Botany

- ▶ Cover all aspects of plant science: why plants grow where they do; how they grow; and the effect of nature, animals and humans on them

Entomology

- ▶ Understand all aspects of insects and related forms. Specialise in areas such as taxonomy and morphology, applied entomology, ecology, and medical and veterinary entomology

Microbiology

- ▶ Study microscopic organisms and their medical, veterinary, industrial and environmental uses

Parasitology

- ▶ Study parasitic animals, the diseases they cause, and the nature of the host-parasite relationship

Pharmacology

- ▶ Learn about the science of drugs, their preparation, uses and effects
- ▶ Understand the chemical substances that modify physiological function

Physiology

- ▶ Study the body fluids, cells, tissues and organs, and the way in which these individual parts are integrated

Zoology

- ▶ Investigate animal life from its single-celled form to large animals and their structure, function, behaviour and ecology

▶ Earth Sciences

Archaeology

- ▶ Study human origins, evolution, and prehistoric and historic societies and their activities by analysing artefacts, buildings and shipwrecks

Earth resources

- ▶ Learn about the distribution of elements in the solid earth, hydrosphere and atmosphere, and the principles governing their migration
- ▶ Cover geology, chemistry, mining and exploration, geochemistry and environmental science

Earth science

- ▶ Undertake studies in solid earth, the hydrosphere and the atmosphere, including the Earth's properties and the natural processes that act on both its surface and its interior

- ▶ Apply chemistry, physics, mathematics, computing or biology to Earth systems

Geography

- ▶ Study environmental, urban, rural, economic issues, particularly the regional patterning of natural resources, their development and associated human impact

Geology

- ▶ Study geology, chemistry, geochemistry and other sciences to identify the materials, chemistry, structure and landforms of the Earth

Geology and geophysics

- ▶ Explore and mine mineral, metal and fuel deposits
- ▶ Specialise in exploration geology, mining geology, exploration geophysics and mining geophysics

Geophysics

- ▶ Look at the Earth's interior, studying such physical properties as seismic waves, heat flow, gravity and magnetism

Hydrology

- ▶ Explore the science of the movement, distribution and quality of water on the land or under the Earth's surface

Marine science

- ▶ Combine marine biology, oceanography, marine geoscience and environmental management to study the marine environment
- ▶ Investigate and manage human impacts on the marine environment and marine resources

Meteorology

- ▶ Forecast the weather and study the physics and dynamics of the atmosphere, climate and weather patterns
- ▶ Study specific climate change and investigate the most efficient methods of analysing and forecasting atmospheric conditions
- ▶ Analyse and interpret atmospheric data relating to weather conditions, research and develop new theoretical concepts

Oceanography sciences

- ▶ Explore the origin of ocean basins, tides, waves, currents and their physical interactions, the chemistry of seawater and life in the oceans, productivity and habitats

▶ Environmental Sciences

Air, land and water science

- ▶ Assess, evaluate and manage the degradation, rehabilitation and conservation of atmosphere, land and water systems
- ▶ Assess and attempt to minimise the impact of agricultural, rural and urban developments on air, soil and water systems

Coastal management

- ▶ Monitor coastal habitats and water quality in estuaries and inshore areas, particularly marine ecosystems, coastal ecosystems, aquatic ecosystems and coastal protected areas
- ▶ Restore and repair critically damaged areas

Ecology

- ▶ Study how living organisms interact with their environment. These environments range from the individual to the community and the ecosystem itself

▶ Interdisciplinary Biological Areas

Biotechnology

- ▶ Use knowledge from a range of scientific disciplines including molecular biology, genetics, biochemistry, microbiology and immunology to create new products
- ▶ Cover activities including fermentation technologies for plant and animal cells and waste remediation

Computational biology

- ▶ Use computing to manage large biological datasets and use this information and mathematical sciences to understand biological processes

- ▶ Span the full range of biological investigation from the analysis of molecular structure and function to the modelling of systems such as ecosystems

Drug design and development/pharmaceutical chemistry

- ▶ Design new pharmaceutical chemicals through successive stages of synthesis, testing, formulation and large-scale production

Food science, nutrition and technology

- ▶ Cover the fundamental physical, chemical and biochemical nature of foods and the principles of food processing
- ▶ Develop, research, select, process and distribute safe, wholesome, nutritious and appealing foodstuffs
- ▶ Write food standard guidelines

Wine science

- ▶ Learn about wine, brewing and food processing industries
- ▶ Work in wineries, production management, quality control, and research and development



▶ Mathematics and Computer Science

Computer science

- ▶ Design, develop and implement computer systems at a general level for generic distribution or with particular specifications for an organisation
- ▶ Design and use elements of a computer system such as operating systems, computer languages, graphics and image processing, and networks

Mathematics

- ▶ Work with governments or large corporations to solve business and social problems, and to keep their technology, management methods and specialist products ahead of rivals
- ▶ Work in universities and research organisations conducting pure or applied mathematical research

Statistics

- ▶ Solve problems for which no theory can make exact predictions, forecast for decision-makers or conduct operational research to improve efficiency for managers
- ▶ Design experiments and analyse data in biological, medical, general scientific, sociological research, business management, marketing and financial analysis

▶ Medical Sciences

Biomedical science

- ▶ Investigate the relationship between humans, health and disease using knowledge from a number of disciplines including chemistry, physics, mathematics and biochemistry

Clinical laboratory techniques and medical laboratory science

- ▶ Acquire the skills needed in clinical laboratories to perform tests and procedures that are used to diagnose disease, disorders and ailments
- ▶ Set up and maintain equipment, prepare slides and collect blood samples

Forensic science

- ▶ Study disciplines that emphasise the presentation of medical evidence in criminal cases, including molecular biology, chemistry, physics, biochemistry and pathology

Genetics

- ▶ Study genes and their effects to understand the process of heredity and variation in living organisms, and to discover how genetic material works
- ▶ Use genetic knowledge in teaching, genetic counselling, clinical laboratories, forensics and public policy

Human movement science

- ▶ Understand how and why human movement occurs, the adaptations to movement occurring with training, and changes in movement resulting from disorders, maturation and ageing
- ▶ Study biological perspectives on human movement to provide a basis for a range of professions in the areas of sport and exercise science, health promotion, and health and physical education

Neuroscience

- ▶ Study the nervous system, including the brain, spinal cord and neural networks controlling functions such as breathing, vision, hearing, learning and behaviour
- ▶ Understand human emotion, thought and behaviour, how the nervous system develops and functions, and neurological and psychiatric disorders

Sport science

- ▶ Assess and analyse the human body's performance in daily life, leisure and recreation activities, and in athletic pursuits
- ▶ Maximise body performance using analysis and specific performance objectives

▶ Physical Sciences

Chemistry

- ▶ Choose from study areas such as carbon compounds, metal and non-metal compounds, using mathematical methods to study chemicals and analytical chemistry

Industrial chemistry

- ▶ Learn chemical principles including the buying, processing and analysis of raw materials, and the nature of reactors and their control
- ▶ Understand the chemistry of industrial processes, operate and improve chemical plants, undertake quality control of products

Instrumentation

- ▶ Apply physics to the design and construction of high-technology tools in industries that seek to develop the next generation of technology

Laser sciences

- ▶ Examine the fundamentals of optics, laser design and construction, and the use of these technologies to address technological challenges
- ▶ Design and manufacture optical information systems, laser systems for industrial and agricultural alignment functions, and in medicine and ophthalmology

Materials science

- ▶ Develop new materials and study existing ones including metals, minerals, glasses and ceramics, synthetic and natural polymers
- ▶ Understand the importance of materials in scientific uses such as forensic investigation or in assessing the condition of existing structures

Physics

- ▶ Explore the fundamental properties of the universe and the laws that govern their behaviour
- ▶ Specialise in areas including mechanics, relativity, nuclear physics, optics, microprocessors, geophysics, measurement and instrumentation, and radiation physics

▶ Veterinary Science

Veterinary science

- ▶ Study the production, husbandry and care of animals in health and disease. These may be food animals, companion animals and animals in their native environment
- ▶ Work in private practice, government departments, universities, research institutes, wildlife and conservation or developing countries where animal agriculture is vital