HEALTH, ENGINEERING AND SCIENCE HANDBOOK 2006
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Caution: This Handbook provides a guide to courses available within the Faculty of Health, Engineering and Science at the University in 2006. The Handbook cannot hope to cover all of the various options adequately, although it attempts to be as accurate as possible, and students should always check with the relevant faculty or school officers in planning their courses. The Handbook also includes descriptions of courses that may be altered later or that may not in fact be offered due to insufficient enrolments or changes in teaching personnel. The fact that details of a course are included in the Handbook can in no way be taken as creating an obligation on the part of the University, faculty or school to teach it in any given year, or to teach it in the manner described. The University reserves the right to discontinue or vary courses at any time without notice.

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HOW TO USE THIS BOOK
Welcome to the Faculty of Health, Engineering and Science Handbook 2006. The Handbook is designed to provide students with detailed information on course structure, subject content, on-campus facilities and University regulations and procedures required for the successful completion of study.

This Handbook lists all undergraduate and postgraduate courses offered by the Faculty of Health, Engineering and Science. The Undergraduate Studies section outlines the requirements and structure of all undergraduate courses offered by individual Schools within the Faculty of Health, Engineering and Science. The credit point value for each subject is included with the course details. The course outlines are followed in the Undergraduate Subject Details section by a detailed description of all undergraduate subjects, which are listed in alphanumeric order according to their subject code. The postgraduate area is similar, outlining each course offered followed by a description of all postgraduate subjects.

The back sections of the Handbook include useful information about articulation and credit transfer, recognition of prior learning, admission and enrolment procedures and services available to students.

HANDBOOK ON THE WEB
This Handbook is also on Victoria University's web site at www.vu.edu.au

CREDIT POINTS
Victoria University has a credit points system in which each subject is given a value according to its academic weighting. To complete each year of a course, students must complete subjects to the value of 120 points. For more information on credit points, see the ‘Admission, Enrolments, Examinations, Graduations and Academic Procedures’ section in the back of this Handbook.

PLEASE NOTE
The attention of all students and prospective students is drawn to the possibility that due to circumstances that presently cannot be foreseen, the details of the programs, courses and subjects set out in this Handbook might change after the date of publication. Accordingly, before final decisions are made or enrolment occurs based on information contained in the Handbook, each student or prospective student should contact the Faculty Student Information on (03) 9919 4516 to ensure that the pertinent information is still accurate.
Welcome to the Faculty of Health, Engineering and Science at Victoria University and to one of the most exciting periods in your life. Your studies over the next few years will, naturally, be very important and you will have to be fully committed to your studies if you are to succeed. However, I have no doubt that it will be worth it in the end. We will be doing all that we can to help you and this guide contains some information that should be of assistance.

The Faculty has over 295 staff and the equivalent of 3310 full-time students located at five of the University’s campuses – City Flinders, City King, Footscray Park, St Albans and Werribee. The Faculty Office is located at the St.Albans campus. The Faculty has seven Schools, two Research Centres, three Research Units and two Clinics.

SCHOOLS

- Architectural, Civil and Mechanical Engineering
- Biomedical Sciences
- Computer Science and Mathematics
- Electrical Engineering
- Health Sciences
- Molecular Sciences
- Nursing and Midwifery

RESEARCH CENTRES

- Telecommunications and Micro-Electronics
- Environmental Safety and Risk Engineering

RESEARCH UNITS

- Food Marketing Research Unit
- Packaging and Polymer Research Unit
- Sustainability Group

CLINICS

- Health Practice Unit
- Osteopathic Medicine Clinic

The Faculty currently offers courses at Undergraduate and Postgraduate levels, an external program in Sydney, offshore courses in China, Hong Kong, Malaysia and the Netherlands, together with non-award courses, and a range of pathways. The Faculty also conducts a very successful access program, Foundation Studies, which is a one-year full-time course for students whose VCE results or subjects were not satisfactory to gain entry to a science or engineering course at university or for those who want to return to study. Successful completion of appropriate subjects will guarantee students entry to our Engineering and Science courses at Victoria University.

The Faculty of Health, Engineering and Science provides students with a sound scientific training with strong emphasis on practical skills and problem solving that equips them well for a range of professional careers. There has been a major change to problem-based learning strategies in the classroom. The Faculty offers a comprehensive range of courses in health, engineering and science up to PhD level.

The courses have been developed to meet the vocational needs of students, and special care has been taken to consult the professional organisations to ensure that graduating students receive professional recognition for their qualifications. Students will find the staff of the Faculty willing to help and advise them during their studies. Staff members also take a keen interest in the job placement and careers of graduates.

There is more to university life than just study and I urge you to make the most of all social opportunities that Victoria University and student life has to offer. I would especially recommend that you become involved with any student society our Faculty has to offer. Make the most of the opportunities that are before you and best wishes for your time with us now and beyond.

Professor Ian Rouse
Executive Dean
Faculty of Health, Engineering and Science
RESEARCH
Research in the Faculty is conducted by academic staff, visiting researchers, postdoctoral fellows and postgraduate students, and covers a variety of areas. Research by postgraduate students enrolled in higher degrees under the supervision of academic staff is an integral part of the Faculty’s research effort. Through the students’ research training the Faculty seeks not only to meet the immediate needs of the student and industry but also to play a major role in developing Australia’s future research personnel and prospective academics. Research activities and topics are listed in the Schools and Research Centres/Units/Group in the Postgraduate Studies section of the Handbook.

ALTERNATIVE ENTRY
Engineering (VTAC code 41441)
Science (VTAC code 41451)
Alternative entry program for students who have:
- successfully completed year 12 with the required prerequisites, but may not have achieved the required study score in all prerequisites; or
- have not studied the required mathematics prerequisite.
All admissions are on an individual basis.

PREREQUISITES
Units 3 and 4 – English [any] and Mathematics [any].

EXTRA REQUIREMENTS
All applicants offered a place will be required to attend an appropriate summer bridging program or enrol in one or more subjects from the Foundation Year or undertake part or all of an appropriate TAFE program.

FURTHER INFORMATION
Further information about courses and research programs may be obtained from the Faculty of Health, Engineering and Science Office, Victoria University, PO Box 14428 Melbourne VIC 8001, telephone (03) 9919 4516, facsimile (03) 9919 4513, or email: hes@vu.edu.au
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SCHOOL OF ELECTRICAL ENGINEERING
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See ‘Academic Staff’ under School of Molecular Sciences

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FOUNDATION STUDIES
Co-ordinator
Nicholas Athanasiou BSc(Chem)(Hons)VicMelb
UNDERGRADUATE STUDIES

FACULTY OF HEALTH, ENGINEERING AND SCIENCE

COURSES OFFERED
The Faculty of Health, Engineering and Science offers the following undergraduate courses:

- Certificate in Foundation Studies;
- Double Degree courses in:
  - Engineering and Business E-Commerce;
  - Engineering and Science;
  - Engineering and Law;
  - Engineering and Arts;
  - Science and Business E-Commerce;
  - Science and Law;
  - Science and Arts;
  - Science and Psychology.

CERTIFICATE IN FOUNDATION STUDIES
(ENGINEERING AND SCIENCE)
Course Code: JCFS

PHILOSOPHY AND AIMS OF THE COURSE
Many students are interested in science, health science, computing and/or engineering but have reservations about some of the fundamental study areas that define these disciplines. For various reasons, study areas such as chemistry, physics and mathematics are regarded as unapproachable.

To remedy this situation, the Faculty of Health, Engineering and Science provides a year-long Foundation Studies program.

The Foundation Studies has been designed to:

- strengthen a student’s understanding of these ‘difficult’ study areas;
- endeavour to develop a student’s confidence in these study areas; and
- foster an intellectual vigour in tackling both further future tertiary courses and areas of employment that are built upon these study areas.

Upon successful completion of the Foundation Studies program prerequisite subjects, students are guaranteed entry into courses operated by the Engineering and Science areas and access to a considerable number of courses run by the Health Science area within the Faculty. Access to Double degree programs run by the Faculty can also be accessed, however distinction marks across prerequisite subjects is required to access such programs.

COURSE DESCRIPTION
In general, the Foundation Studies program aims to provide an opportunity for students:

(i) who have not studied science and mathematics at Year 12 level;
(ii) who have studied basic science and mathematics at Year 12 level but did not achieve appropriate study scores to enable them to satisfy the entrance requirements for courses in the Faculty of Science, Engineering and Technology;
(iii) whose recent educational results have not been at the level of which they are capable of performing;
(iv) who are returning to study after some years away from formal education; or
(v) who wish to change direction in their education.

To make certain that students receive a concerted education that will fulfill the entry requirements of the tertiary system whilst taking into consideration the educational background of the students, the majority of the foundation study areas are streamed. Different streams can be undertaken for different subjects if required.

These streams: beginners, intermediate and advanced; offered by the Foundation Studies program reflect and accommodate the broad cross-section of the educational backgrounds of students.

STUDIES STREAMS
BEGINNERS STREAM
The beginners stream is designed for students that would like to pursue a tertiary qualification in a science, computing or an engineering discipline but:

- have had no prior contact with these disciplines; or
- have previously experienced learning difficulties in the study of these disciplines.

The beginners stream is specifically designed to introduce students to the fundamental principles that underpin the disciplines of science and engineering; to provide students with the ability to recognise, utilise and interpret these principles; to prepare students for their further tertiary education and most importantly foster a process of sustained learning and research.

Recognising the possible lack of confidence and/or trepidation brought about by the unfamiliarity of these study areas, students within this stream will be provided with extensive tuition in small classes over extended semesters. The beginners stream will commence in March and conclude in early February of the following year. Upon successful completion of prerequisite subject areas, students will gain guaranteed entry into one of the undergraduate courses offered by the Faculty of Science, Engineering and Technology.
INTERMEDIATE STREAM
The intermediate stream is designed for students who would like to pursue a tertiary qualification in a science, computing or an engineering discipline but have not been successful in completing or meeting the pass requirements of related subject areas previously undertaken.

The intermediate level will run over two semesters, each of which will run for 16 weeks and will commence in March and conclude in December of the same year.

ADVANCED STREAM
Students enrolled into the advanced stream of a particular subject will undertake an accelerated program. If all the topic areas within the study area(s) over Semester One are successfully completed a student may be eligible to enter a first-year undergraduate course or first-year year undergraduate core subjects within the Faculty in Semester Two.

CHOICE OF STREAM
Suitability of entry into any of these streams will be assessed upon completion of an entrance test and an interview. Students that have not previously attempted study areas that parallel those they wish to undertake at foundation level may opt not to sit for the test and enter the beginners stream.

Each stream will be timetabled so as to allow students upon consultation with Foundation Studies staff to move into an alternate stream over the duration of the course.

STUDY AREAS CHOICES
The following study areas are offered as part of Foundation Studies: Biology, Chemistry, English Language and Communication Skills, IT, Mathematics for Scientists, Mathematics for Engineers and Physics. Students will generally enrol in four subject areas. Fewer subjects may be undertaken. This will be determined by considering the students previous academic record, the results of the grading tests and via interview with the student. A choice of either a mathematics for scientists or engineers typically must be undertaken by all students.

COURSE DURATION
The course is year long course although transfer to other courses is possible as a subject transfers following semester one. Semester One is undertaken over 17 weeks and Semester Two over 16 weeks. Beginners students may require to undertake a further session in early February of the following year for approximately seven weeks.

COURSE LOCATION
All study areas will be taught at the University’s Footscray Park campus

COURSE FEE
Students who fit under the Federal Government Guidelines of disadvantage are HECS exempt with respect to the Foundation Studies program.

APPLICATION PROCEDURES
Application to Foundation Studies is via direct application. Students will need to fill out an undergraduate application form available from Student Admissions, phone on (03) 9919 2286 or download from the website www.vu.edu.au/admissions. Alternatively the form can be accessed at www.vu.edu.au/foundationstudies.

Further information regarding the Foundation Studies program can be obtained from the Faculty Office.

BACHELOR OF BUSINESS ELECTRONIC COMMERCE/BACHELOR OF SCIENCE
Course Code: BBES

COURSE OBJECTIVES
The combined course will provide students with a broad ranging program of study and learning aimed at satisfying the academic and professional requirements in both the appropriate field of science and of business. The double degree course will equip graduates to obtain employment in business and government, in major scientific organizations and elsewhere. It was improve learning by providing a fundamental framework for the application of business and scientific concepts and ideas and their co-integration which will ensure that students are capable of engaging successfully in these professional areas in a commercial environment.

COURSE DURATION
The course is offered over four years on a full-time basis or part-time equivalent. All undergraduate degree subjects carry a value of 12 credit points. If undertaking Co-operative Education, additional credit points is required for graduation.

ADMISSION REQUIREMENTS
To qualify for admission to the course an applicant must have successfully completed a course of study at year 12 level or equivalent.

In addition to satisfying the entry requirements for Australian resident students or demonstrating equivalence, overseas students must provide evidence of proficiency in the English language:

- International English Language Testing System – overall band score of 6–7 subject to individual profile; or
- Test of English as a Foreign Language – score of 550, plus a Test of Written English – score of 5.

COURSE STRUCTURE
Subject to approval.

BACHELOR OF ENGINEERING/BACHELOR OF BUSINESS ELECTRONIC COMMERCE
Course Code: EEBE

COURSE OBJECTIVES
The combined course will provide students with a broad ranging program of study and learning aimed at satisfying the academic and professional requirements in a specialisation in business together with an appropriate field of engineering. The double degree course will equip graduates to obtain employment in business, government, and in major engineering organizations.

COURSE DURATION
The course is offered over five years on a full-time basis or part-time equivalent. All undergraduate degree subjects carry a value of 12 credit points.

ADMISSION REQUIREMENTS
To qualify for admission to the course an applicant must have successfully completed a course of study at year 12 level or equivalent.
In addition to satisfying the entry requirements for Australian resident students or demonstrating equivalence, overseas students must provide evidence of proficiency in the English language:

- International English Language Testing System – overall band score of 6–7 subject to individual profile; or
- Test of English as a Foreign Language – score of 550, plus a Test of Written English – score of 5.

**COURSE STRUCTURE**

Subject to approval.

**BACHELOR OF ENGINEERING/ BACHELOR OF SCIENCE**

Course Code: EBSE

**COURSE OBJECTIVES**
The combined Bachelor of Engineering/Bachelor of Science course will provide students with a broad ranging program of study and learning aimed at satisfying the academic and professional requirements in both science and the appropriate field of engineering. The double degree course will enable graduates to obtain employment in business and government, in major engineering organisations, private industry and elsewhere.

**COURSE DURATION**

Five years of full-time study.

**COURSE STRUCTURE**

Subject to approval.

**BACHELOR OF ENGINEERING/ BACHELOR OF LAWS**

Course Code: EBBL

**COURSE OBJECTIVES**
The combined Bachelor of Engineering/Bachelor of Laws course will provide students with a broad ranging program of study and learning aimed at satisfying the academic and professional requirements in both law and the appropriate field of engineering. The double degree course will equip graduates to obtain employment in law, business and government, in major engineering organisations, at the Bar and elsewhere.

**COURSE DURATION**

Six years of full-time study.

**COURSE STRUCTURE**

Subject to approval.

**BACHELOR OF ENGINEERING/ BACHELOR OF ARTS**

Course Code: EBEA

Campus: Footscray Park

**COURSE DESCRIPTION**
The double degree structure of the Bachelor of Engineering/Bachelor of Arts integrates education, training and research. With the increasing globalisation of industry, Australia’s close proximity to Asia and the increasing reliance on technology and in particular multimedia, there is need for professionally qualified engineers to be offered the opportunity to be exposed to international studies and develop more skills in the field of multimedia communications. The course will give students access to a broad curriculum and to a program, which transcends disciplinary boundaries.

**COURSE OBJECTIVES**
The combined Bachelor of Engineering/Bachelor of Arts course will prepare professionally trained engineers to have a broader outlook than just the purely technical skills of the engineering program; enhance their professional engineering skills with LOTE and cultural studies; and produce graduates capable of performing their professional functions in culturally diverse settings.

**COURSE DURATION**
The course is offered over 5 years on a full-time basis or part-time equivalent.

**COURSE STRUCTURE**

Subject to approval.

**BACHELOR OF SCIENCE/ BACHELOR OF LAWS**

Course Code: BLBS

**COURSE OBJECTIVES**
The combined Bachelor of Science/Bachelor of Laws course will provide students with a broad ranging program of study and learning aimed at satisfying the academic and professional requirements in both law and the appropriate field of science. The double degree course will equip graduates to obtain employment in law, business and government, in major scientific organisations, at the Bar and elsewhere.

**COURSE DURATION**

Five years of full-time study.

**COURSE STRUCTURE**

Subject to approval.

**BACHELOR OF ARTS/BACHELOR OF SCIENCE**

Course Code: ABPS

**COURSE OBJECTIVES**
The combined Bachelor of Science/Bachelor of Arts course will prepare professionally trained scientists to take their place in industrial and government employment; enhance the professional scientific skills with LOTE and cultural studies; and produce graduates capable of performing their professional functions in a culturally diverse setting.

**COURSE DURATION**

Four years of full-time study.

**COURSE STRUCTURE**

Subject to approval.
SCHOOL OF ARCHITECTURAL, CIVIL AND MECHANICAL ENGINEERING

COURSES OFFERED
The School of Architectural, Civil and Mechanical Engineering offers undergraduate courses leading to the award of:

- Bachelor of Engineering in:
  - Architectural Engineering;
  - Building Engineering;
  - Civil Engineering;
  - Mechanical Engineering;
  - Robotic Engineering;
- Bachelor of Technology;
  - Building Surveying.

A degree with Honours program is offered concurrently with the fourth year of the engineering degrees. Normally, students entering the final year of a full-time Bachelor of Engineering program (or its equivalent in part-time mode) will be offered honours candidacy if they have achieved at least a credit average over year levels 1–3.

THE SCOPE OF ARCHITECTURAL ENGINEERING
The degree in Architectural Engineering is an exciting new development involving studies in Architecture, advanced environmental services and life safety system design and the integration of Architecture and all engineered building systems.

The need for a degree in Architectural Engineering has arisen from the increasing complexity of all building systems in the last two decades, and an increased level of client demand for buildings and building systems that better meet their needs.

At Victoria University, Architectural Engineering focuses on the development of planning and design skills for engineered environmental services and structural systems. The course blends selected ‘creative’ Architecture skills into an Engineering degree framework, so that graduates are better enabled to work closely and in harmony with Architects in the design of buildings to delight both clients and end users.

This choice reflects the world-wide trend and emergence of professional Engineering societies whose role is to ensure that the highest standards of design and construction of such engineered systems are achieved. In Australia, both the Society for Building Services Engineering (Institution of Engineers – Australia) and in Victoria, defined professional engineering design roles within the Victorian Building Control Act, are recent examples of this development.

Architectural Engineering graduates will have strong technical and communication skills, and a good understanding and appreciation of Architectural design practice as well as the economic, and social environment in which they will operate. The ongoing and increasing need for building infrastructure development will ensure there will be a significant demand both locally and overseas for graduates with such highly specialised skills, founded on a broad yet integrated building technology base.

Employment opportunities exist with private consulting firms, contractors, and government agencies throughout Australia and overseas. Exciting and flexible opportunities exist for Architectural Engineering graduates to play a vital role in:

- the private sector including consulting, contracting, construction and project management firms specialising in the design and management of building environmental, structural and life safety systems in the multi-billion dollar national and international building industry;
- the public sector.

THE SCOPE OF BUILDING ENGINEERING
The degree in Building Engineering has been offered for 25 years and whilst it covers the entire building process, from planning and financial feasibility studies, to design of structures and services systems, and site preparation and construction, it focuses on the skills needed for project managing the planning and construction process of buildings to achieve completion on time within budget.

Building engineers require multi-disciplinary training that including building construction technology, construction and project management, legal and economic processes, basic structures, and thermo-fluid and electromagnetic systems. Building Engineering graduates have strong technical and communication skills, and a good understanding and appreciation of the environmental, economic, social and legislative environment in which they must operate.

The ongoing and increasing need for building infrastructure development will ensure there will be a significant demand for graduates with a broad yet integrated set of skills in this area, both locally and overseas.

Employment opportunities exist with private firms and contractors, government agencies and authorities throughout Australia and overseas. Exciting and flexible opportunities exist for Building Engineering graduates to play an important role in:

- the public and private sector (consulting, contracting, construction and project management firms specialising in multi-billion dollar national and international building industry);
- diverse areas such as urban planning; risk assessment and management; and the operation of buildings.

THE SCOPE OF CIVIL ENGINEERING
Civil engineering is defined as the study, design, construction, management, and maintenance of lasting community amenities and infrastructure systems. These include all buildings from houses to high-rise offices, roads, railways, waterways, reservoirs, sewers, and all other facilities which are used to improve convenience and quality of life for the present community and future generations.

There is widespread community concern about conservation issues and environmental degradation at local, national and global levels. At the same time, a rapidly increasing world population is imposing ever-increasing demands on the provision of infrastructure to satisfy basic and more advanced human needs. Such demands are particularly illustrated by the rapid urban growth occurring in many areas, with associated requirements for appropriate types of building, energy, transportation, water supply and waste management systems, along with other major community facilities. These conflicting trends have led to an appreciation by many
members of the world community that the need for development is substantial, but at the same time such development must be sustainable.

Civil Engineering graduates should have strong technical and communication skills, and a good understanding and appreciation of the environmental, economic, social and political environment in which they must operate.

The increasing need for infrastructure provision allied with substantial forms of development should ensure there will be a significant demand for graduates with a truly integrated set of skills in these areas, both on the local scene and overseas.

Employment opportunities exist with private consulting firms and contractors, government agencies and authorities in Australia and overseas.

THE SCOPE OF ROBOTIC ENGINEERING

Engineering is the profession in which knowledge of mathematical and natural sciences is applied to develop technologies to economically exploit the natural resources for the benefit of humankind. Mechanical engineering, which began to develop as a distinctive area of engineering practice in the early part of last century, has now developed into an extremely diverse and complex profession.

Mechanical engineers find employment in government and private enterprise in such wide-spread areas as manufacturing, design of products and machines such as automotive industry, automatic control of machines and processes, heating and air conditioning systems, machine and condition monitoring, hydraulic and pneumatic systems, computer applications – including finite element analysis, computer-aided design and computational fluid dynamics and research and development in a wide range of fields.

This degree course is designed to provide the broad education required for the mechanical engineer’s professional career. A broad engineering education leaves engineers better prepared to communicate with each other, to avoid technological obsolescence and to learn new skills as technology advances.

The Bachelor of Engineering in Mechanical Engineering program offered by the School is designed to match with specialist subject in robotics, mechatronics, control engineering, mathematics, design materials and computing are emphasised to show how the experimental method is used in the solution of engineering problems. Design experience includes devising means to perform specified tasks such as the design of automotive systems, computer applications – including finite element analysis, computer-aided design and computational fluid dynamics and research and development in a wide range of fields.

The Robotic Engineering course is designed to enable students to pursue studies orientated towards design and application of mechanisms, computer adaptation and simulation, electronic control, instrumentation and automation in industry and research. The course integrates relevant subjects in engineering and computing to appeal to incoming good quality students with mechanical, electronic and computer interests along with the essential background in mathematics and physics.

This course provides the broad based knowledge required of the modern engineer to be technically competent in design, problem solving and analysis while developing important communication and management skills.

The Robotic Engineering course is designed to enable students to pursue studies orientated towards design and application of mechanisms, computer adaptation and simulation, electronic control, instrumentation and automation in industry and research. The course integrates relevant subjects in engineering and computing to appeal to incoming good quality students with mechanical, electronic and computer interests along with the essential background in mathematics and physics.

This course provides the broad based knowledge required of the modern engineer to be technically competent in design, problem solving and analysis while developing important communication and management skills.

Fundamental studies in engineering mechanics, electrical engineering, mathematics, design materials and computing are matched with specialist subject in robotics, mechatronics, control systems and computer simulation in higher years. Significant emphasis is placed on project and laboratory activities and industry exposure throughout the course.

THE SCOPE OF BUILDING SURVEYING

Graduates of the Bachelor of Technology in Building Surveying course at Victoria University will have gained valuable qualifications for employment within the building and construction industry where, as building practitioners or potential building practitioners, they are likely to be involved in the administration of acts, regulations, codes and standards relevant to the design, construction, occupation and maintenance of a wide range of buildings used for residential, office, retail, storage, industrial, public, etc purposes.

Basic functions that Building Surveyors are authorized (by State legislation) to perform include the issuing of building permits, the carrying out of inspections of buildings and building work and the issuing of occupancy permits and temporary approvals. Building Surveyors must be sufficiently knowledgeable and experienced to competently perform the range of professional duties that they are appointed to carry out.

COMPUTING FACILITIES

The School gives high priority to the provision of quality facilities for computing-based instruction and research. The University’s centrally located computing facilities are complemented by special dedicated facilities within the Faculty of Health, Engineering and Science and the School of Architectural, Civil and Mechanical Engineering.

The School’s facilities include four rooms with some 110 Pentium PC’s all connected to a central file server and printing facilities. In addition, most of the School’s laboratories contain high-performance computing workstations which, when not in use for experiments, are accessible to students enrolled in the School of Architectural, Civil and Mechanical Engineering. These computing facilities provide an extensive range of modern software for engineering applications such as Computer Aided Design, Finite Element Analysis, Solid and Surface Modelling, Computational Fluid Dynamics, Digital Signalling Processing, Statistical Analysis, Control System Design and Simulation, CivilCAD, EPANET2, MDSolids, Camel, Primavera, Strand7, Space GASS, Statics and Kinematics Analysis and Simulation. In addition, major programming languages, spreadsheets and word processing software are accessible from all workstations. Access to e-mail, AARNET and the Internet (limited) are also provided.

The School’s multimedia production studio, containing two high-performance PCs connected to colour printers, scanners, audio and video interface devices and CD writers are available to undergraduate and postgraduate students enrolled at the School. The School’s computing facilities are managed by a fulltime computer engineer.
ARTICULATION PATHWAYS
Special provision is made for admission into engineering degree courses on the basis of good results for an Associate Diploma in an appropriate field of study. Interested persons should refer to the section on Articulation and Credit Transfer at the back of this book. Transfer between degree courses with credit for subjects already passed is a possibility.

ACADEMIC PROGRESSION GUIDELINES AND UNSATISFACTORY PROGRESS
Each undergraduate course is specified as a unique set of course subjects. The sequence in which these course subjects are normally studied is specified, firstly, by grouping them in course years and secondly, by specifying prerequisites and/or co-requisites for some subjects.

Normally all of the course subjects in a particular course year must be completed and all prerequisite/co-requisite requirements satisfied before enrolment will be permitted in any subject in a subsequent course year. Enrolment in a group of subjects spanning more than two course years is not permitted.

In order to satisfy the academic requirements for a course award, all course subjects must be completed. Such completion may be obtained by:

- being granted exemption in either individual subjects or in course years; and/or
- achieving a grade of P (or higher) in the assessment of each subject; and/or
- being granted compensation in course years.

A stage grading of ‘Year Completed by Compensation’ may be granted if a student:

- has been given final grades in all subjects in the course year; and
- has passed subjects equivalent to more than 80 per cent of total required semester hours for that course year with no assessment at less than N1 grade; and
- has achieved an hour-weighted average mark of at least 50 per cent for all subjects in the year.

A grading of ‘Year Completed by Compensation’ recognises an acceptable overall result but does not constitute a pass in any individual failed subject.

Students who do not satisfy the requirements for a ‘Year Completed by Compensation’ must repeat all failed subjects of that year (or their equivalents) at the earliest opportunity.

Normally, gradings of ‘Year Completed by Compensation’ will not be granted in consecutive years of a course.

Normal progress through a course requires a student to complete any defined course year within one year of equivalent full-time enrolment.

Any of the following may be considered to constitute unsatisfactory progress by a student:

(i) failure in any subject or unit for the third time.
(ii) failure in any subject or unit at n2 level for the second time.
(iii) failure in 50 per cent or more of their assessed enrolment load in any semester or calendar year of study;
(iv) failure to complete any two consecutive course years within three years of equivalent full-time enrolment,
(v) failure to complete the course within any maximum period defined by University Statute.
(vi) failure to meet a conditional enrolment agreement.

Exemption approval is given by notification in writing.

STUDY LOAD
PART-TIME STUDY
Part-time study can be approved at any stage of a course since progress is by individual subjects rather than by years. Part-time study involves attending normal day classes. It is unrealistic to expect to complete a degree course entirely on a part-time basis.

FULL-TIME STUDY
Full-time study of the degree courses is over a four-year period, and involves from 19 hours of Class Contact per week in first year and 18 lectures per week in subsequent years.

SINGLE SUBJECT ENROLMENT
Suitably qualified persons may be permitted to enrol for single subjects as part of their further education but passes in such subjects may not be counted should the students study later for a degree or diploma.

SUPPLEMENTARY ASSESSMENT
Supplementary assessment is not normally available in any subject except at the discretion of the Head of School in exceptional circumstances.

ENROLMENT AMENDMENT
Enrolment may be changed with agreement by the examiner and Course Co-ordinator. Application must be made on the appropriate form. A change for any semester is without penalty up until the form. A change for any semester is without penalty up until the census dates of March 31 and August 31 (refer to published dates). During the second month a late enrolment amendment fee becomes payable and HECS liability continues for subjects discontinued. Thereafter enrolment changes are not normally approved.

ASSIGNMENTS AND LABORATORY REPORTS
During the semester a lecturer may require students to complete certain assignments and laboratory reports, excursions (and reports of these), projects, library readings, etc. These are an integral part of the course and must be satisfactorily completed by the due date. If, for any legitimate reason a student believes they will be unable to complete the assignment by the due date, they should obtain prior approval for an extension of time from the lecturer, who may:

(a) grant an extension of time, with or without mark penalty, or
(b) refuse the request.

In general, 80 per cent of assignment/laboratory work must be completed satisfactorily before admission to a final examination (if such is required) or for a pass in the subject (if this is the method of assessment). Each student must maintain a satisfactory record of attendance at lectures, tutorials, laboratory sessions, fieldwork exercises, drawing classes and design sessions.
SPECIAL EQUIPMENT REQUIREMENTS

INSTRUMENTS AND EQUIPMENT
Students must buy the drawing instruments specified for engineering drawing. These will also be required in surveying and other subjects. A clipboard, heavy boots and waterproof clothing are required for excursions or surveying field work. Breakages of University equipment due to misuse must be paid for by students.

COMPUTERS
University and Department computer facilities are provided for use by students during normal working hours and in extended hours subject to demand. Extensive relevant software is available.

ELECTRONIC CALCULATORS
Students must have a scientific calculator. Electronic calculators are used in tutorials, laboratory or fieldwork classes and in examinations at the discretion of the subject lecturer. Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers. Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.

BORROWING OF EQUIPMENT
Students are not permitted to borrow University equipment for use off-Campus except for survey fieldwork and similar authorised purposes, in which case students must sign a loan form and assume full responsibility for the care of the equipment.

FILMS AND EXCURSIONS
Where films or slides are shown as part of a lecture series, these should be attended by all students of the subject since the material covered cannot be presented in notes or textbooks and is examinable. Similarly, excursions outside the University are essential in bringing students into contact with aspects of professional practice. These are part of the course and must be attended. Cost of transport or excursions is normally paid by students as part of the cost of the course.

MENTORING OF STUDENTS BY STAFF
A staff member to whom each student should refer any problem likely to affect their progress has been assigned to each course year. Advisers may be changed only by request of the student or the adviser to the Head of School. Any problem concerning a service subject administered by another department should be referred to the Course Co-ordinator.

OFFICIAL NOTICES
Official notices will be posted on the notice board near the School Office. Students should view this frequently.

SUGGESTIONS FOR IMPROVEMENT
Student Liaison Committees are a normal forum for students to express their concerns through student representatives. Complaints and suggestions for improvement may also be made in writing at any time to the Head of School or may be placed in the suggestion box in the library.

PROFESSIONAL SOCIETIES
Students are encouraged to join the Institution of Engineers, Australia and, where appropriate, The Australian Institute of Building for a nominal fee.

BACHELOR OF ENGINEERING IN ARCHITECTURAL ENGINEERING

Course Code: EBAE
CRICOS No: 040973D

COURSE OBJECTIVES
The course is designed to develop vocational skills for the engineering planning, design, construction, maintenance and management of building environmental and life safety systems. The basic objectives of the course are to produce graduates who:

- have a solid foundation of scientific, engineering and project management knowledge capped by specific theoretical and practical exposure to the design of building environmental and life safety systems;
- have the ability to communicate effectively, both orally and in writing, and work well in a team situation;
- have an understanding of community need for building infrastructure in the context of societal aspirations and expectations;
- are motivated to continually improve their knowledge base; and
- are immediately productive upon completion of the course and are thus attractive to prospective employers.

COURSE PHILOSOPHY
The first two years of the degree program involves engineering fundamentals to provide a solid foundation for the applied engineering subjects in the following years of the course. Studies in architecture design practices and architectural history are developed in second and third year. These fundamentals provide students with the basis of understanding all developments in the profession of Architectural Engineering and Engineering in general as technology continually changes and the profession undergoes continual adjustment.

The applied engineering subjects building structures, building environmental and life safety systems, and building project management are introduced. In the final two years of the program, students undertake a major in either environmental systems design or structural systems design. An optional integrated 12 weeks industry placement period is available in Architectural Engineering at the end of the third year of the course in a ‘summer semester’ subject. Architectural Engineering graduates will have enhanced skills for careers in:

- advanced environmental services system design;
- building renovation and refurbishment;
- building structures design;
- computer aided design and drawing;
- construction planning, management and project supervision;
- cost estimating and project feasibility;
- building energy audits and conservation studies;
- engineering consultation and investigations;
- facilities management and programming;
- interior lighting design;
- risk assessment for building system performance;
- support for preservation Architecture; and
- simulation of building environmental system performance.
PROFESSIONAL RECOGNITION
The Bachelor of Engineering in Architectural Engineering will be submitted for recognition by the Building Practitioners Board and Building Control Commission in Victoria. This submission is to meet the minimum academic qualification for registration as a Mechanical or Electrical Engineer, or as a Civil Engineer (Structures) as defined by the responsibilities of these categories of 'Engineer' in the Victorian Building Control Act. The degree satisfies the requirements for accreditation by The Institution of Engineers, Australia and will be submitted for accreditation by the Australian Institute of Building.

OVERSEAS EXCHANGE PROGRAM
Each year two students from Victoria University who are enrolled in either Architectural or Building Engineering, are able to undertake studies with full credit for one semester in the third year of the Architectural Engineering degree program at the University of Nebraska – Omaha (UNO), U.S.A.
University scholarships are available to assist students in undertaking this exchange. The program at UNO is one of the newest and best resourced Architectural Engineering degrees in the U.S.A., having commenced in 1999 within new propose built buildings and facilities.

ADMISSION REQUIREMENTS AND PREREQUISITES
The prerequisite subjects for admission into the first year of the course are based on entry at post Year 12, Victorian Certificate of Education, or equivalent level, and are as follows:

PREREQUISITES UNITS 3 AND 4
Mathematical Methods or Specialist Mathematics, with a study score of at least 22 in English

MIDDLE BAND SELECTION
Re-ranking based on study scores in the full range of year 12 student, with particular attention to pre-requisite studies and other science based studies.

ADMISSION AT OTHER LEVELS
Articulation from Associate Diploma or Diploma courses in Building Construction and Design or Engineering. Credit will be given to subjects passed to a sufficient level of competence.
Persons transferring from other courses or having overseas or other entrance qualifications of at least equivalent standard to those listed above, should apply for admission in the normal manner.
Full-fee paying international students must have qualifications which are equivalent to those listed above. In addition, they must provide evidence of proficiency in the English language:
- IELTS – an overall band score of 6+, subject to individual profile; or
- TOEFL – a score of 550+, and a Test of Written English score of 5+.

COURSE STRUCTURE
Engineering subject codes commence with "V".
Science subject codes commence with "R".

<table>
<thead>
<tr>
<th>Credit Points</th>
<th>Semester Hours</th>
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</thead>
</table>

Year 1
Semester One
REP1001 Engineering Physics 1A 12 60
RMA1001 Engineering Mathematics 1A 12 60
VAN1011 Experimentation & Computing 12 60
VAN1051 Engineering Profession 12 60
Total 48 240
Semester Two
REP1003 Engineering Physics 1C 12 60
RMA1002 Engineering Mathematics 1B 12 60
VAN1022 Solid Mechanics 1 12 60
VAN1032 Introduction to Design 12 60
Total 48 240

Year 2
Semester One
VAA2031 Architectural History & Design 12 60
VAN2021 Solid Mechanics 2 12 60
VAN2041 Thermofluids 12 60
VAN2061 Engineering Materials 12 60
Total 48 240
Semester Two
VAA2002 Electrical Power Systems 1 12 60
VAC2022 Building Materials & Construction 12 60
VAC2042 Hydraulics 12 60
VAN2032 Engineering Design 12 60
Total 48 240

SERVICES STREAM
Year 3
Semester One
VAA3001 Electrical Power Systems 2 12 60
VAA3031 Environmentally Sustainable Design 1 12 60
VAA3071 HVAC Systems 1 12 60
VAA3081 Building Construction and Legislation 1 12 60
Total 48 240
Semester Two
VAN3052 Engineering Management 12 60
VAA3032 Environmentally Sustainable Design 2 12 60
VAA3042 Hydraulic Services Systems 12 60
VAA3072 HVAC Systems 2 12 60
Total 48 240

STRUCTURES STREAM
Year 3
Semester One
VAA3031 Environmentally Sustainable Design 1 12 60
VAA3081 Building Construction and Legislation 1 12 60
VAC3021 Structural Analysis 12 60
VAC3061 Geomechanics 12 60
Total 48 240
Semester Two
VAA3042 Hydraulic Services Systems 12 60
VAC3062 Geotechnical Engineering 12 60
VAC3092 Structural Design 12 60
VAN3052 Engineering Management 12 60
Total 48 240
A Degree with Honours Program is offered concurrently with the fourth year of the ordinary Bachelor of Engineering program. Normally, students entering the final year of a full-time Bachelor of Engineering program (or its equivalent in part-time mode), will be offered honours candidacy, if they have achieved a minimum of 60 per cent over year levels 1 to 3, have not repeated a subject throughout levels 1 to 3 and have not been granted more than one year completion by compensation throughout the duration of the course. Fourth year honours degree gradings will be determined by the relevant Examiners Board on the basis of the hour weighted average for year level 4.

INDUSTRIAL EXPERIENCE
Students are required to undertake a 12 week industrial work experience period during their course. At the end of third year, students will have to undertake a 12 week (minimum) integrated industry placement program. It is intended that this program will meet the 12 week industrial work experience requirements imposed upon all accredited Engineering degree courses by Engineers Australia.

BACHELOR OF ENGINEERING IN BUILDING ENGINEERING
Course Code: EBCB
CRICOS No: 002858M

COURSE OBJECTIVES
The course is designed to develop vocational skills for the engineering planning, design, construction, maintenance and management of buildings and building services systems. The basic objectives of the course are to produce graduates who:

- have a solid foundation of scientific, engineering and project management knowledge capped by specific theoretical and practical exposure to either the design of building structures or building services systems;
- have the ability to communicate effectively, both orally in writing, and work well in a team situation;
- have an understanding of community need for building infrastructure in the context of societal aspirations and expectations;
- are motivated to continually improve their knowledge base; and
- are immediately productive upon completion of the course and are thus attractive to prospective employers.

The course recognises societal needs for professional Engineers who have sound technical knowledge and good communication skills and capable of providing appropriate building infrastructure that is affordable, safe and comfortable to live and work within. The course is founded on a broad base of science and engineering fundamentals in the first and second year, with emphasis then given in the third and fourth years to applied discipline-specific topics, design and project work. The three study areas commence in the second and third years of the course and are building structures, building services and building construction and project management. In the final year, the focus for the course becomes planning and project management of the building construction process.

Special Consideration in assessment may be granted on the grounds defined by the University Statutes. Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers.

Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.

DEGREE WITH HONOURS
A Degree with Honours Program is offered concurrently with the fourth year of the ordinary Bachelor of Engineering program. Normally, students entering the final year of a full-time Bachelor of Engineering program (or its equivalent in part-time mode), will be offered honours candidacy, if they have achieved a minimum hour weighted average of 60 per cent over year levels 1 to 3, have not repeated a subject throughout levels 1 to 3 and have not been granted more than one year completion by compensation throughout the duration of the course. Fourth year honours degree gradings will be determined by the relevant Examiners Board on the basis of the hour weighted average for year level 4.
University scholarships are available to assist students in undertaking this exchange. The program at UNO is one of the newest and best resourced Architectural Engineering degrees in the U.S.A., having commenced in 1999 within new purpose-built buildings and facilities.

ADMISSION REQUIREMENTS AND PREREQUISITES
The prerequisite subjects for admission into the first year of the course are based on entry at post Year 12, Victorian Certificate of Education, or equivalent level, and are as follows:

PREREQUISITES UNITS 3 AND 4
Mathematical Methods or Specialist Mathematics, with a study score of at least 22 in English.

MIDDLE BAND SELECTION
Re-ranking based on study scores in the full range of year 12 student, with particular attention to pre-requisite studies and other science based studies.

ADMISSION AT OTHER LEVELS
Persons transferring from other courses or having overseas or at least equivalent standard to those listed above, should apply for admission in the normal manner.

Full-fee paying international students must have qualifications which are equivalent to those listed above. In addition, they must provide evidence of proficiency in the English language:
- IELTS – an overall band score of 6+, subject to individual profile; or
- TOEFL – a score of 550+, and a Test of Written English score of 5+.

COURSE DURATION
The course is offered over four years on a full-time basis. Part-time study may be approved. However, the course cannot be completed solely on a part-time basis. Students must complete 384 credit points.

COURSE STRUCTURE
Engineering subject codes commence with ‘V’. Science subject codes commence with ‘R’.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Semester One</th>
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</thead>
<tbody>
<tr>
<td>REP1001 Engineering Physics 1A</td>
<td>12</td>
<td>60</td>
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<td></td>
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<tr>
<td>RMA1001 Engineering Mathematics 1A</td>
<td>12</td>
<td>60</td>
<td></td>
<td></td>
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<tr>
<td>VAN1051 Engineering Profession</td>
<td>12</td>
<td>60</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
<td><strong>240</strong></td>
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</table>

| Semester Two | | | | |
| REP1003 Engineering Physics 1C | 12 | 60 | | |
| RMA1002 Engineering Mathematics 1B | 12 | 60 | | |
| VAN1022 Solid Mechanics 1 | 12 | 60 | | |
| VAN1032 Introduction to Design | 12 | 60 | | |
| **Total** | **48** | **240** | | |

<table>
<thead>
<tr>
<th>Year 2</th>
<th>Semester One</th>
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</thead>
<tbody>
<tr>
<td>VAA2031 Architectural History &amp; Design</td>
<td>12</td>
<td>60</td>
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<tr>
<td>VAN2021 Solid Mechanics 2</td>
<td>12</td>
<td>60</td>
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<tr>
<td>VAN2041 Thermofluids</td>
<td>12</td>
<td>60</td>
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<tr>
<td>VAN2061 Engineering Materials</td>
<td>12</td>
<td>60</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
<td><strong>240</strong></td>
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</table>

| Semester Two | | | | |
| VAA2002 Electrical Power Systems 1 | 12 | 60 | | |
| VAC2042 Hydraulics | 12 | 60 | | |
| VAC2022 Building Materials & Construction | 12 | 60 | | |
| VAN2032 Engineering Design | 12 | 60 | | |
| **Total** | **48** | **240** | | |

SERVICES STREAM

<table>
<thead>
<tr>
<th>Year 3</th>
<th>Semester One</th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VAA3001 Electrical Power Systems 2</td>
<td>12</td>
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<td></td>
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<tr>
<td>VAA3031 Environmentally Sustainable Design 1</td>
<td>12</td>
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<tr>
<td>VAA3071 HVAC Systems 1</td>
<td>12</td>
<td>60</td>
<td></td>
<td></td>
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<tr>
<td>VAA3081 Building Construction and Legislation 1</td>
<td>12</td>
<td>60</td>
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<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
<td><strong>240</strong></td>
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</table>

| Semester Two | | | | |
| VAN3052 Engineering Management | 12 | 60 | | |
| VAA3042 Hydraulic Services Systems | 12 | 60 | | |
| VAA3032 Environmentally Sustainable Design 2 | 12 | 60 | | |
| VAA3072 HVAC Systems 2 | 12 | 60 | | |
| **Total** | **48** | **240** | | |

STRUCTURES STREAM

<table>
<thead>
<tr>
<th>Year 3</th>
<th>Semester One</th>
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<tbody>
<tr>
<td>VAA3081 Building Construction and Legislation 1</td>
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<tr>
<td>VAC3021 Structural Analysis</td>
<td>12</td>
<td>60</td>
<td></td>
<td></td>
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<tr>
<td>VAA3031 Environmentally Sustainable Design 1</td>
<td>12</td>
<td>60</td>
<td></td>
<td></td>
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<tr>
<td>VAC3061 Geomechanics</td>
<td>12</td>
<td>60</td>
<td></td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
<td><strong>240</strong></td>
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</tbody>
</table>

| Semester Two | | | | |
| VAN3042 Hydraulic Services Systems | 12 | 60 | | |
| VAC3062 Geotechnical Engineering | 12 | 60 | | |
| VAC3092 Structural Design | 12 | 60 | | |
| VAN3052 Engineering Management | 12 | 60 | | |
| **Total** | **48** | **240** | | |

SERVICES STREAM

<table>
<thead>
<tr>
<th>Year 4</th>
<th>Semester One</th>
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<tbody>
<tr>
<td>VAA4051 Building Quantities and Costs</td>
<td>6</td>
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<tr>
<td>VAA4071 HVAC Systems 3</td>
<td>6</td>
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<td></td>
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<tr>
<td>VAA4051 Engineering Project Management #</td>
<td>12</td>
<td>60</td>
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<tr>
<td>ECP5726 Project Procurement Management #</td>
<td>12</td>
<td>60</td>
<td></td>
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<tr>
<td>ECP5705 Project Management &amp; Information Technology</td>
<td>12</td>
<td>60</td>
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<tr>
<td>VAN4011 Engineering Project 1</td>
<td>12</td>
<td>48</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
<td><strong>240</strong></td>
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</tbody>
</table>

| Semester Two | | | | |
| VAA4082 Building Construction and Legislation 2 | 6 | 36 | | |
| VAA4092 Building Systems Design and Construction | 6 | 36 | | |
| ECP5716 Project Development Analysis | 12 | 60 | | |
| ECP5736 Facility Life Cycle Costing | 12 | 60 | | |
| VAN4012 Engineering Project 2 | 12 | 48 | | |
| **Total** | **48** | **240** | | |
structures Stream

Year 4

Semester One
VAA4051 Building Quantities and Costs 6 36
ECP5726 Project Procurement Management # 12 60
ECP5705 Project Management & Information Technology 12 60
VAC4091 Structural Engineering Design 1 6 36
VAN4011 Engineering Project 1 12 48
or
VAN4051 Engineering Project Management 12 60
Total 48 240

Semester Two
VAA4082 Building Construction and Legislation 2 6 36
VAA4092 Building Systems Design and Construction 6 36
ECP5716 Project Development Analysis 12 60
ECP5736 Facility Life Cycle Costing 12 60
VAN4012 Engineering Project 2 12 48
Total 48 240

Assessment

Assessment in subjects is designed to monitor a student’s progress and achievements as well as to contribute to and enhance their learning. Normally a prescribed range of assessment methods is employed in any subject.

Assessment is by a combination of written assignments, tests, laboratory work and examinations.

Supplementary assessment is normally not available in any subject except at the discretion of the Head of School in exceptional circumstances.

Special Consideration in assessment may be granted on the grounds defined by the University Statutes.

Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers.

Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.

Degree with Honours

A Degree with Honours Program is offered concurrently with the fourth year of the ordinary Bachelor of Engineering program. Normally, students entering the final year of a full-time Bachelor of Engineering program (or its equivalent in part-time mode), will be offered honours candidature, if they have achieved a minimum hour weighted average of 60 per cent over year levels 1 to 3, have not repeated a subject through levels 1 to 3 and have not been granted more than one year completion by compensation throughout the duration of the course. Fourth year honours degree gradings will be determined by the relevant Examiners Board on the basis of the hour weighted average for year level 4.

Industrial Experience

Students are required to undertake a 12 week industrial work experience period during their course. At the end of third year, students will have an option to undertake a 12 week (minimum) integrated industry placement program. It is intended that this program will meet the 12 week industrial work experience requirements imposed upon all accredited Engineering degree courses by Engineers Australia.

Bachelor of Engineering in Civil Engineering

Course Code: EBCC
CRICOS No: 002859K

Civil Engineering is a broad-based discipline involving the planning, design, construction and management of a wide range of essential community infrastructure including, commercial and industrial buildings, water supply and wastewater systems, irrigation, drainage and flood protection systems, bridges, roads, highways and transportation systems, and port harbour and airport facilities.

The course philosophy is very much based on a recognition of society’s need for well-rounded engineers who not only have sound technical and communication skills but also a good understanding of the environmental, economic, social and political environment in which they must operate.

The course is founded on a solid base of science and engineering fundamentals in the first two years, with emphasis then being given in years three and four to applied discipline-specific topics, design and project work. Substantial emphasis is given in a range of subjects to professionalism, ethics and community responsibility, team assignments, broad problem solving and communication skills, and the concepts of sustainability and sustainable engineering practices. Focus on local engineering examples, experiential learning and site visits, together with significant input from external industry-based lecturers, provides students with exposure to real world problems and is considered a motivational cornerstone of the course.

There are two major streams in structural and water engineering running through the course, complemented by minor streams in geomechanics and transportation engineering. Environmental and management issues are covered in specific subjects but also more broadly by integration into a range of other subjects throughout the course. Subject streams are generally sequential within a well-defined structure. It is envisaged that this structure may be modified somewhat in the future with a view to further motivating students by allowing them a greater degree of flexibility and specialisation, once a firm foundation has been established in the early years of the course. The incorporation of more flexibility should also allow students to remedy any perceived deficiencies in the more basic course.

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A study abroad exchange program is under investigation with the Department of Civil Engineering at the University of Nebraska at Omaha, Nebraska, USA.

Course Objectives

The course is designed to develop skills for the application of engineering principles of planning, design, construction and management of buildings, roads, water supply and all other major community amenities.

Admission Requirements and Prerequisites

The prerequisite subjects for admission into the first year of the course are based on entry at post Year 12, Victorian Certificate of Education, or equivalent level, and are as follows:

Prerequisites Units 3 and 4

Mathematical Methods or Specialist Mathematics, with a study score of at least 22 in English.

Middle Band Selection

Re-ranking based on study scores in the full range of year 12 student, with particular attention to pre-requisite studies and other science based studies.
ADMISSION AT OTHER LEVELS
Persons transferring from other courses or having overseas or other entrance qualifications of at least equivalent standard to those listed above, should apply for admission in the normal manner. A preliminary interview with the Head of School concerned is advisable for such applicants.

Full-fee paying international students must have qualifications which are equivalent to those listed above. In addition, they must provide evidence of proficiency in the English language:
- IELTS – an overall band score of 6+, subject to individual profile, or
- TOEFL – a score of 550+, and a Test of Written English (TWE) score of 5+.

COURSE DURATION
The course is offered over four years on a full-time basis. Part-time study may be approved. However, the course cannot be completed solely on a part-time basis. Students must complete 384 credit points.

COURSE STRUCTURE
Engineering subject codes commence with ‘V’.
Science subject codes commence with ‘R’.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Semester One</th>
</tr>
</thead>
<tbody>
<tr>
<td>REP1001 Engineering Physics 1A</td>
<td>12</td>
</tr>
<tr>
<td>RMA1001 Engineering Mathematics 1A</td>
<td>12</td>
</tr>
<tr>
<td>VAN1011 Experimentation &amp; Computing</td>
<td>12</td>
</tr>
<tr>
<td>VAN1051 Engineering Profession</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48 240</strong></td>
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<thead>
<tr>
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<tbody>
<tr>
<td>REP1003 Engineering Physics 1C</td>
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<tr>
<td>RMA1002 Engineering Mathematics 1B</td>
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<td>VAN1022 Solid Mechanics 1</td>
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<td>12</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>48 240</strong></td>
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<table>
<thead>
<tr>
<th>Year 2</th>
<th>Semester One</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAC2071 Surveying</td>
<td>12</td>
</tr>
<tr>
<td>VAN2021 Solid Mechanics 2</td>
<td>12</td>
</tr>
<tr>
<td>VAN2041 Thermofluids</td>
<td>12</td>
</tr>
<tr>
<td>VAN2061 Engineering Materials</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>48 240</strong></td>
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<table>
<thead>
<tr>
<th>Year 2</th>
<th>Semester Two</th>
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<tbody>
<tr>
<td>VAC2022 Building Materials and Construction</td>
<td>12</td>
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<tr>
<td>VAC2042 Hydraulics</td>
<td>12</td>
</tr>
<tr>
<td>VAC2072 Highway Engineering</td>
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<td>VAN2032 Engineering Design</td>
<td>12</td>
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<td><strong>Total</strong></td>
<td><strong>48 240</strong></td>
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<table>
<thead>
<tr>
<th>Year 3</th>
<th>Semester One</th>
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<tbody>
<tr>
<td>VAC3021 Structural Analysis</td>
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<td>VAC3031 Civil Engineering Design 1</td>
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<tr>
<td>VAC3041 Hydrology &amp; Water Resources</td>
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<tr>
<td><strong>Total</strong></td>
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Year 3

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>VAC3042 Hydraulic Engineering</td>
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<tr>
<td>VAC3062 Geotechnical Engineering</td>
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<tr>
<td>VAC3092 Structural Design</td>
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Year 4

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<tr>
<th>Semester One</th>
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<tbody>
<tr>
<td>VAC4071 Transportation Engineering</td>
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<tr>
<td>VAC4081 Environmental Engineering 1</td>
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<tr>
<td>VAC4091 Structural Engineering Design 1 (or approved elective 1*)</td>
</tr>
<tr>
<td>VAN4011 Engineering Project 1</td>
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<tr>
<td>VAN4051 Engineering Project Management</td>
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<table>
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<tr>
<th>Semester Two</th>
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</thead>
<tbody>
<tr>
<td>VAC4032 Civil Engineering Design 2</td>
</tr>
<tr>
<td>VAC4072 Environmental Planning and Design (or approved elective 2*)</td>
</tr>
<tr>
<td>VAC4082 Environmental Engineering 2</td>
</tr>
<tr>
<td>VAC4092 Structural Engineering Design 2 (or approved elective 3*)</td>
</tr>
<tr>
<td>VAN4012 Engineering Project 2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Electives

May be taken to a value of 6, 12 or 18 CP depending on which of VAC4072, VAC4091 and/or VAC4092 is done (18 max)

*Approved Electives from within the School of ACME
- VAA2031 Architectural History and Design | 12 | 60 |
- VAA3031 Environmentally Sustainable Design 1 | 12 | 60 |
- VAA3042 Hydraulic Services Systems | 12 | 60 |
- VAA3081 Building Construction and Legislation 1 | 12 | 60 |
- VAA4051 Building Quantities and Costs | 6 | 36 |
- VAA4082 Building Construction and Legislation 2 | 6 | 36 |
- VAM2011 Computations & Engineering Analysis | 12 | 60 |
- VEM2012 Electrical Engineering | 12 | 60 |

Electives from outside School of ACME (Subject to approval of Course Co-ordinator)

ASSESSMENT

Assessment in subjects is designed to monitor a student’s progress and achievements as well as contribute to and enhance their learning. Normally a prescribed range of assessment methods is employed in any subject.

Assessment is by a combination of written assignments, tests, laboratory work and examinations.

Supplementary assessment is not normally available in any subject except at the discretion of the Head of School in exceptional circumstances.

Special Consideration in assessment may be granted on the grounds defined by the University Statutes.

Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers.

Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.
DEGREE WITH HONOURS
A Degree with Honours Program is offered concurrently with the fourth year of the ordinary Bachelor of Engineering program. Normally, students entering the final year of a full-time Bachelor of Engineering program (or its equivalent in part-time mode), will be offered honours candidacy, if they have achieved a minimum hour weighted average of 60 per cent over year levels 1 to 3, have not repeated a subject throughout levels 1 to 3 and have not been granted more than one year completion by compensation throughout the duration of the course. Fourth year honours degree gradings will be determined by the relevant Examiners Board on the basis of the hour weighted average for year level 4.

INDUSTRIAL EXPERIENCE
Candidates applying for the award of a degree in civil engineering must ensure that they have submitted for approval evidence of having undertaken a minimum of 12 weeks industrial experience relevant to the course to satisfy Engineers Australia requirements.

PROFESSIONAL RECOGNITION
Engineers Australia has granted full recognition for the Bachelor of Engineering in Civil Engineering. Recognition is a requirement for Graduate Membership of Engineers Australia and additionally for equivalent membership of many overseas professional engineering institutions.

OVERSEAS EXCHANGE PROGRAM
Victoria University has exchange agreements with universities in many countries, some of which are the U.S.A., Canada, Mexico, United Kingdom and many European and Asian countries.

COURSE OBJECTIVES
The degree is designed to provide the broad education required for a mechanical engineering career. In addition to theoretical and practical engineering content, the course contains integrated studies in economics, administration and communication. The degree emphasises achievement across mechanical engineering disciplines in concert with problem solving, design, engineering applications, innovation, resource management and professional responsibility. Government institutions and private enterprise employ mechanical engineers in manufacturing, design of products and machines, automatic control of machines and processes, heating and air conditioning systems, machine and condition monitoring, hydraulic and pneumatic systems, computer applications – including finite element analysis, computer-aided design and Computational Fluid Dynamics and research and development in a wide range of fields.

ADMISSION REQUIREMENTS AND PREREQUISITES
The prerequisite subjects for admission into the first year of the course are based on entry at post Year 12, Victorian Certificate of Education, or equivalent level and are as follows.

PREREQUISITES UNITS 3 AND 4
Mathematical Methods or Specialist Mathematics, with a study score of at least 22 in English

MIDDLE BAND SELECTION
Re-ranking based on study scores in the full range of year 12 students, with particular attention to prerequisite studies and other science based studies.

COURSE DURATION
The course is offered over four years on a full-time basis. The entire course cannot be completed on a part-time basis. Students must complete 384 credit points.

COURSE STRUCTURE
Engineering subject codes commence with ‘V’. Science subject codes commence with ‘R’.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Subject Title</th>
<th>Credit Points</th>
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<td>Year 1</td>
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<tr>
<td></td>
<td>Semester One</td>
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<tr>
<td>RMA1001</td>
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<td>Engineering Physics 1A</td>
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<td>VAN1051</td>
<td>Engineering Profession</td>
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<td>60</td>
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<tr>
<td>VAN1011</td>
<td>Experimentation &amp; Computing</td>
<td>12</td>
<td>60</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>48</strong></td>
<td><strong>240</strong></td>
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<tr>
<td></td>
<td>Semester Two</td>
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<tr>
<td>RMA1002</td>
<td>Engineering Mathematics 1B</td>
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<td>REP1003</td>
<td>Engineering Physics 1C</td>
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<td>60</td>
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<tr>
<td>VAN1032</td>
<td>Introduction to Design</td>
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<td>60</td>
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<tr>
<td>VAN1022</td>
<td>Solid Mechanics 1</td>
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<td>Semester One</td>
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<tr>
<td>VAM2011</td>
<td>Computations &amp; Engineering Analysis</td>
<td>12</td>
<td>60</td>
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<td>VAM2021</td>
<td>Solid Mechanics 2</td>
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<td>60</td>
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<td>VAM2061</td>
<td>Engineering Materials</td>
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<td>60</td>
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<td>VAM2041</td>
<td>Thermofluids</td>
<td>12</td>
<td>60</td>
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<tr>
<td></td>
<td>Semester Two</td>
<td></td>
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<tr>
<td>VEM2012</td>
<td>Electrical Engineering</td>
<td>12</td>
<td>60</td>
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<tr>
<td>VAM2062</td>
<td>Materials and Manufacture</td>
<td>12</td>
<td>60</td>
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<tr>
<td>VAM2032</td>
<td>Engineering Design</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>VAM2042</td>
<td>Thermodynamics &amp; Fluid Mechanics 1</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
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<td></td>
<td><strong>48</strong></td>
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ASSessment

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INDUSTRIAL EXPERIENCE

Candidates applying for the award of a degree in mechanical engineering must ensure that they have submitted for approval evidence of having undertaken a minimum of 12 weeks industrial experience relevant to the course to satisfy the Institution of Engineers, Australia, requirements.

OVERSEAS EXCHANGE PROGRAM

Victoria University has exchange agreements with universities in many countries, some of which are the U.S.A., Canada, Mexico, United Kingdom and many European and Asian countries.

For those students who do wish to study abroad, there is the opportunity to experience living in a different culture and environment, and to develop self-responsibility and reliance skills.

Many students achieve improved results in their remaining studies after returning home, having developed a clearer perception of their future career with a stronger determination to succeed.

PROFESSIONAL RECOGNITION

Engineers Australia recognises the degree as meeting all academic requirements for corporate membership as a chartered engineer. Completion of the degree plus 12 weeks approved experience will admit to Graduate Membership. Victoria University students are eligible for Student Membership.

BACHELOR OF ENGINEERING IN ROBOTIC ENGINEERING

Course Code: EBRE
CRICOS No: 047048G

COURSE OBJECTIVES

This course is envisaged to integrate existing relevant subjects and resources within the Faculty of Health, Engineering and Science to appeal to incoming high ENTER level students with mechanical, electronic and computer interests along with the essential background in mathematics and physics. The structure of the course is to provide a common core progression with the revised Mechanical Engineering degree course linked with specialist subjects in robotics. Student completing this course will find employment as specialist engineers in the mechanical and electronic engineering interface in industry and research.

ADMISSION REQUIREMENTS AND PREREQUISITES

To qualify for admission to the course an applicant must have successfully completed a course of study at year 12 level or equivalent.

PREREQUISITES UNITS 3 AND 4

Mathematical Methods or Specialist Mathematics, with study score of at least 22 in English.

MIDDLE BAND SELECTION

Re-ranking based on study scores in the full range of year 12 student, with particular attention to pre-requisite studies and other science based studies.

ADMISSION AT OTHER LEVELS

In addition to satisfying the entry requirements for Australian resident students or demonstrating equivalence, overseas students must provide evidence of proficiency in the English language:

• IELTS – an overall band score of 6.5, subject to individual profile; or
• TOEFL – a score of 550+, and a Test of Written English (TWE) score of 5+.
COURSE DURATION
The course is offered over four years on a full-time basis or part-time equivalent.

COURSE STRUCTURE
Engineering subject codes commence with "V". Science subject codes commence with "R".

Year 1
Semester One
RMA1001 Engineering Mathematics 1A 12 60
REP1001 Engineering Physics 1A 12 60
VAN1051 Engineering Profession 12 60
VAN1011 Experimentation & Computing 12 60
Total 48 240

Semester Two
RMA1002 Engineering Mathematics 1B 12 60
REP1003 Engineering Physics 1C 12 60
VAN1032 Introduction to Design 12 60
VAN1022 Solid Mechanics 1 12 60
Total 48 240

Year 2
Semester One
VEL1001 Circuit Theory and Electronics 1A 12 60
VAN2021 Solid Mechanics 2 12 60
VAN2041 Thermofluids 12 60
VEC1001 Computer Engineering 1A 12 60
Total 48 240

Semester Two
VEL1002 Circuit Theory and Electronics 1B 12 60
VAR2001 Mechatronics 1 12 60
VAN2032 Engineering Design 12 60
VEC1002 Computer Engineering 1B 12 66
Total 48 240

Year 3
Semester One
VEC2001 Computer Engineering 2A 12 60
VAM3071 Dynamics 12 60
VAM3031 Mechanical Engineering Design 1 12 60
VEL2001 Linear Systems & Mathematics 2A 12 60
Total 48 240

Semester Two
VED2002 Engineering Design and Professional Practice 2 12 60
VAM3012 Signal Analysis 12 60
VEL2002 Linear Systems & Mathematics 2B 12 60
VAN3052 Engineering Management 12 60
Total 48 240

Year 4
Semester One
VEA4400 Robotics and Automation 6 36
VAN4051 Engineering Project Management 12 60
VAN4011 Engineering Project 1 12 48
VEA3000 Control Systems A 12 60
Elective 1 6 36
Total 48 240

Semester Two
VAM4032 Mechanical Engineering Design 2 12 60
VAN4012 Engineering Project 2 12 48
VEA4000 Computer Control Systems B 12 60
Elective Stream 12 60
Total 48 240

Electives
Approved electives from within the School of ACME
VAM4062 Manufacturing and Polymer Technologies 12 60

Approved electives from within the School of Electrical Engineering
VEA4100 Computer Vision & Applications 6 36
VEA4200 Fuzzy Control & Applications 6 36
VEG 4100 Digital Signal Processing A 6 36
RMA4001 Advanced Mathematics for Electrical Engineers 6 36

Other electives from outside of these Schools
Subject to approval of Course Co-ordinators

ASSESSMENT
Assessment in subjects is designed to monitor a student’s progress and achievements as well as contribute to and enhance their learning. Normally a prescribed range of assessment methods is employed in any subject.

Assessment is by a combination of written assignments, tests, laboratory work and examinations.

INDUSTRIAL EXPERIENCE
Candidates applying for the award of a degree in robotic engineering must ensure that they have submitted for approval evidence of having undertaken a minimum of 12 weeks industrial experience relevant to the course to satisfy the Institution of Engineers, Australia, requirements.

OVERSEAS EXCHANGE PROGRAM
Victoria University has exchange agreements with universities in many countries, some of which are the U.S.A., Canada, Mexico, United Kingdom and many European and Asian countries.

For those students who do wish to study abroad, there is the opportunity to experience living in a different culture and environment, and to develop self-responsibility and reliance skills.

Many students achieve improved results in their remaining studies after returning home, having developed a clearer perception of their future career with a stronger determination to succeed.

PROFESSIONAL RECOGNITION
The Institution of Engineers, Australia, recognises the degree as meeting all academic requirements for corporate membership as a chartered engineer. Completion of the degree plus 12 weeks approved experience will admit to Graduate Membership. Victoria University students are eligible for Student Membership.
BACHELOR OF TECHNOLOGY IN BUILDING SURVEYING

Course Code: EBSB

This course provides a tertiary degree in Building Surveying with exit points at Diploma of Building Surveying qualification level and Advanced Diploma of Building Surveying qualification level. The first three years of the course (at Sunshine campus) focus on building technology and statutory control of building. This involves completion of twenty-four units of competency learning over two years leading to the Diploma of Building Surveying, followed by completion of an additional nineteen units of competency learning leading to the Advanced Diploma of Building Surveying. Concurrent studies (at Footscray Park campus) provide students with basic professional literacy and numeracy. Subjects prescribed for this purpose are VAN1051 Engineering Profession, JCM0110 Mathematics and RMA1001 Engineering Mathematics 1A.

In the final (fourth) year of the course (spread over Footscray Park and Werribee campuses) the focus is on professional practice primarily in the areas of building design, building approval and building construction.

Graduates of this course will have completed studies equivalent to the Graduate Certificate in Performance-Based Building and Fire Codes [Course Code: ETQB] at Werribee campus.

**Course Objectives**

Course objectives are to produce graduates who have acquired a strong technological base for professional practice in the area of Building Surveying and exhibit valuable graduate attributes as follows: A sound knowledge of the structure and practices of Australian building (design and construction) regulatory systems; an understanding and appreciation of building design and approval, and building construction and inspection, as it is influenced by a variety of political, social, economic, cultural, industrial and technological factors; a broad range of vocational skills that can be used to manage and operate a building surveying business, within either the private sector or public sector, and meet the needs of developers, practitioners, authorities, manufacturers, tradespeople and other significant stakeholders; specific skills that will lead to employment in the fields of design consultancy, certification, approvals and permits, construction management, detailed hydraulic, electrical and mechanical services installations, inspection and maintenance, and facility management; an ability to work independently, ethically and professionally in the provision of building surveying services to clients and/or employers, whether as a sole practitioner or within larger organizations including engineering and building surveying consultancies, building contractors, manufacturers, statutory authorities, local government and state government departments; an ability to adapt to the changing needs of industry, commerce and community, as well as the ability to take a leadership role in promoting institutional and social change with social justice initiatives.

Graduates of this course will have had the opportunity to experience learning in a dual sector environment that assists them in both finding employment and becoming lifelong learners in the broader context. Successful graduates of the Bachelor of Technology in Building Surveying course should be able to demonstrate valuable capabilities as follows: Be effective problem solvers in a range of settings including professional practice; locate, evaluate, manage and use information effectively, including critical thinking, information technology skills, information gathering skills, and carrying out statistical and other calculations; Communicate effectively in oral and written form as a professional and as a citizen; Work as a professional both autonomously and collaboratively.

**Admission at Other Levels**

Admission at other levels may be approved, e.g., in the case of an applicant having commenced or completed studies leading to a Diploma or Advanced Diploma at an Institute of TAFE or in the case of a mature-age applicant.

**Course Duration**

Four years full-time. Part-time enrolment may also be approved.

**Course Structure**

### Year 1 and Year 2

**Diploma of Building Surveying**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Points</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCGSV5001A</td>
<td>Assess the construction of domestic scale buildings</td>
<td>100</td>
<td>36</td>
</tr>
<tr>
<td>BCGSV5002A</td>
<td>Evaluate materials for construction of domestic scale buildings</td>
<td>72</td>
<td>24</td>
</tr>
<tr>
<td>BCGSV5003A</td>
<td>Produce working drawings for residential buildings</td>
<td>90</td>
<td>30</td>
</tr>
<tr>
<td>BCGSV5004A</td>
<td>Apply legislation to urban development and building controls</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>BCGSV5005A</td>
<td>Apply footing and geomechanical design principles for domestic scale buildings</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>BCGSV5006A</td>
<td>Assess construction faults in residential buildings</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>BCGSV5007A</td>
<td>Undertake site surveys and set out procedures to building projects</td>
<td>72</td>
<td>24</td>
</tr>
<tr>
<td>BCGSV5008A</td>
<td>Apply building control legislation to building surveying</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>BCGSV5009A</td>
<td>Assess the impact of fire on building materials</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>BCGSV5010A</td>
<td>Interact with clients in a regulated environment</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>BCGSV5011A</td>
<td>Apply building codes and standards to residential buildings</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>BCGSV5012A</td>
<td>Assess timber framed designs for one and two storey buildings</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>BCGSV5013A</td>
<td>Apply principles of energy efficient design to buildings</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>BCGSV5014A</td>
<td>Apply building surveying procedures to residential buildings</td>
<td>36</td>
<td>12</td>
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<tr>
<td>BCGSV5015A</td>
<td>Assess structural requirements for domestic scale buildings</td>
<td>72</td>
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<tr>
<td>BS.BADM506A</td>
<td>Manage business document design and development</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>BS.BCMN406A</td>
<td>Maintain business technology</td>
<td>40</td>
<td>13</td>
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<tr>
<td>CHCCOM3A</td>
<td>Utilise specialist communication skills</td>
<td>50</td>
<td>16</td>
</tr>
<tr>
<td>CHCCOM4A</td>
<td>Develop, implement and promote effective communication techniques</td>
<td>75</td>
<td>25</td>
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<tr>
<td>ICAIITU128A</td>
<td>Operate a personal computer</td>
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<td>10</td>
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<tr>
<td>ICAIITU129A</td>
<td>Operate a word processing application</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>ICAIITU130A</td>
<td>Operate a spreadsheet application</td>
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<td>10</td>
</tr>
<tr>
<td>ICAIITU131A</td>
<td>Operate a database application</td>
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<tr>
<td>ICAIITU133A</td>
<td>Send and retrieve information over the internet using browsers and email</td>
<td>25</td>
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**Subtotal for Diploma** 1136

**Total for Years 1 and 2** N/A 1268

---

**Advanced Diploma of Building Surveying**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Points</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>VAN1051</td>
<td>Engineering Profession</td>
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<tr>
<td>JCM0110</td>
<td>Mathematics</td>
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**Total for Year 2** N/A 1268

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**Course Code: ETQB** at Werribee campus.
Year 3

**ADVANCED DIPLOMA OF BUILDING SURVEYING**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BCGSV6001A</td>
<td>Assess the construction of buildings up to 3 storey</td>
<td>72</td>
</tr>
<tr>
<td>BCGSV6002A</td>
<td>Produce working drawings for buildings up to 3 storey</td>
<td>40</td>
</tr>
<tr>
<td>BCGSV6003A</td>
<td>Assess construction faults in buildings up to 3 storey</td>
<td>40</td>
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<tr>
<td>BCGSV6004A</td>
<td>Apply footings and geomechanical design principles to buildings up to 3 storey</td>
<td>40</td>
</tr>
<tr>
<td>BCGSV6005A</td>
<td>Evaluate services layout and connection methods for residential and commercial buildings up to 3 storey</td>
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</tr>
<tr>
<td>BCGSV6006A</td>
<td>Evaluate the use of concrete for residential and commercial buildings up to 3 storey</td>
<td>40</td>
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<tr>
<td>BCGSV6007A</td>
<td>Assess structural requirements for buildings up to 3 storey</td>
<td>40</td>
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<tr>
<td>BCGSV6008A</td>
<td>Apply building codes and standards to buildings up to 3 storey</td>
<td>72</td>
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<tr>
<td>BCGSV6009A</td>
<td>Implement performance based codes and risk management principles for buildings up to 3 storey</td>
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<tr>
<td>BCGSV6010A</td>
<td>Apply fire technology to buildings up to 3 storey</td>
<td>40</td>
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<tr>
<td>BCGSV6011A</td>
<td>Apply legal procedures to building surveying</td>
<td>40</td>
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<tr>
<td>BCGSV6012A</td>
<td>Facilitate community development consultation</td>
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<td>BCGSV6013A</td>
<td>Co-ordinate asset refurbishment</td>
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<tr>
<td>BCGSV6014A</td>
<td>Manage and plan land use</td>
<td>40</td>
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<tr>
<td>BCGSV6015A</td>
<td>Analyse and present building surveying research information</td>
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<td>BCGSV6016A</td>
<td>Apply building surveying procedures to buildings up to 3 storey</td>
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<tr>
<td>BSX154L606</td>
<td>Manage human resources</td>
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<tr>
<td>LGAPLEM502A</td>
<td>Apply ecologically sustainable development principles to the built environment</td>
<td>60</td>
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<tr>
<td>LMFFT4010A</td>
<td>Identify and calculate production costs</td>
<td>36</td>
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**Subtotal for Advanced Diploma** 1004

**Total for Year 3** N/A 1064

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**Year 4**

Includes subjects as prescribed for Graduate Certificate in Performance-Based Building and Fire Codes

**Semester One**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EQB5611</td>
<td>Risk Assessment &amp; Human Behaviour</td>
<td>12</td>
</tr>
<tr>
<td>EQB5621</td>
<td>Fire growth, Detection and Extinguishment</td>
<td>12</td>
</tr>
<tr>
<td>VAN4011</td>
<td>Engineering Project 1</td>
<td>12</td>
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<tr>
<td>VAN4051</td>
<td>Engineering Project Management</td>
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**Subtotal Semester One** 48 186

**Semester Two**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>EQB5632</td>
<td>Smoke and Fire Spread, Fire Safety System design</td>
<td>12</td>
</tr>
<tr>
<td>EQB5642</td>
<td>Performance Codes</td>
<td>12</td>
</tr>
<tr>
<td>VAN4012</td>
<td>Engineering Project 2</td>
<td>12</td>
</tr>
<tr>
<td>VAN3052</td>
<td>Engineering Management</td>
<td>2</td>
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</table>

**Subtotal for Semester Two** 48 186

**Total for Year 4** 96 372

---

**ASSESSMENT**

For the competency learning components of the course, assessment is conducted in accordance with the Assessment Guidelines for the Building and Construction Industry. For the other subjects that make up the degree, the various assessment stipulations specific to individual subjects are as set out in Subject Details in the Faculty of Health, Engineering and Science Handbook.

**PROFESSIONAL RECOGNITION**

The course satisfies the academic requirements of Building Surveyor practitioner registration boards such as the Building Practitioners Board of Victoria where legislation makes reference to a degree in Building Surveying from a university within the meaning of the Tertiary Education Act 1993. This ensures that graduates who are interested in registering and practising as a professional Building Surveyor have the necessary formal educational qualifications.
The School of Biomedical Sciences is located at St Albans Campus of the University. In line with Faculty objectives, the School is committed to the development and promotion of science and technology. The School seeks to provide students with vocationally and educationally oriented experiences and expertise which will best equip them for entry into a work environment in which there is likely to be significant career changes during their working life. Consequently, the School provides courses and programs with a close relationship between theory and practice, and seeks to include relevant industrial experience within each award course. The School also seeks to foster within its students a personal pride in, and a professional attitude to their work and a full understanding of their responsibilities to society as trained scientists and technologists.

It is the belief of the School that active involvement in research and consultancy is vital in providing quality teaching as well as in developing a viable and practical course for the students. To this end, most of the academic staff have a doctoral degree and substantial research and consultancy experience. The School endeavours to develop close relationships with industry and with the community to keep abreast of their respective needs. To this end student projects are performed in collaboration with industry, the community, government bodies, and research institutes wherever possible.

The School is equipped with world class laboratories and equipment for teaching and research as well as for industrial training programs. These include a state of the art Aquatic Research Laboratory, high performance liquid chromatographs, gas chromatograph-mass spectrometers, atomic absorption spectrophotometers, FTIR spectrometers, NMR, UV-Vis spectrophotometers, an Instron texture analyser, Infratech and NIR Systems food and feed analysers as well as excellent facilities for microbiological and genetic engineering work. Specialist facilities also include a fully-equipped, pilot-scale food processing hall. The School also offers Master of Science and Doctor of Philosophy degrees by research and Masters and Graduate Diploma coursework programs. Further details are given in the Postgraduate Studies section of the Handbook.

### COURSES OFFERED

The School Biomedical Sciences offers undergraduate courses leading to the award of:
- Bachelor of Science (Honours);
- Bachelor of Science;
  - Biomedical Sciences;
  - Nutritional Therapy;
  - Occupational Health and Safety.

### SCHOOL REGULATIONS

The following regulations apply to all courses and subjects administered or taught by the School of Biomedical Sciences and are in addition to University regulations governing these areas as laid down in the Statutes and Regulations.

### AWARDS

A student shall qualify to receive an award when that student has successfully completed all the requirements and prescribed subjects of the course.

### ASSESSMENT

Student assessment will embrace both formal assessment through final examination and continuous assessment incorporating unit tests, assignments, report writing, problem solving exercises, class presentations and laboratory, project and fieldwork. Students would normally be expected to satisfactorily complete each component of the assessment to gain a pass in the subject.

### PRACTICAL WORK

A minimum of 80 per cent attendance is required at all practical sessions. Failure to attend at least 80 per cent of practical sessions will automatically constitute unsatisfactory completion of the subject. Practical reports will only be accepted from those students who have attended practical sessions for their full duration.

### LATE SUBMISSION

Students failing to submit assessable work by the prescribed deadline will incur a penalty of five percentage marks per day for the first ten days after the prescribed deadline. Work submitted after this time will not be assessed and students will be granted a zero grade. This requirement may be varied at the discretion of the subject co-ordinator.

### SUPPLEMENTARY ASSESSMENT

Students may be granted supplementary assessment with a maximum of two supplementary assessments being permitted in any one full-time academic year. Supplementary assessment will not be available for subjects that are being repeated.

### USE OF ELECTRONIC CALCULATORS AND STORAGE DEVICES

The use of electronic calculators and electronic storage devices is not permitted in any examination unless specified in the subject guide for that subject and/or on the examination paper for that subject.

### UNSATISFACTORY PROGRESS

These regulations should be read in conjunction with the Victoria University’s Statute 6.4.1 – Unsatisfactory Progress. The following regulations apply to both full-time and part-time students.

Students in any one of the following categories may be asked to show cause as to why they should not be excluded from the course:
- those who fail 50 per cent or more of their assessable enrolment load (expressed in subjects) in any semester;
- those who fail the same subject twice;
- those who transgress a conditional enrolment agreement.

### DURATION OF EXCLUSION

Excluded students have no automatic right of re-admission to the course from which they were excluded. Students who have been excluded may apply for re-admission not less than one calendar year from the date of exclusion. These students must provide, with their application, evidence of changed circumstances which significantly improve the applicant’s chances of academic success.
PROGRESSION
At Examiners’ Meetings at the end of each semester the results and progress of all students enrolled in the course will be considered. Progression through the course is based on the following guidelines:

- where any compulsory subject must be repeated, enrolment in that subject must be at the first opportunity following the initial failure.
- students may not enrol in any subject for which the prerequisite has not been passed.
- student enrolment will not normally be approved where the total proposed subject hours exceeds the normal total subject hours for a course year.
- where enrolment in a co-requisite subject is required, enrolment in the co-requisite subject must take preference over enrolment in an elective.
- where a subject is being repeated, requests for exemptions for part of the subject work are at the discretion of the Department or School offering the subject. Any exemption granted will normally apply for one year only.

DISCIPLINARY FAILURE
A student who has failed a subject on disciplinary grounds may not enrol in any further subjects without the permission of the Faculty Dean.

REPEATING SUBJECTS
A student who has withdrawn twice in any subject without receiving a penalty grade must seek the permission of the lecturer in charge before being permitted to re-enrol in that subject.

STAGE COMPLETION
A student may apply for a Stage Completion if:

- all subjects in the course except one have been passed;
- a result of N1 (40 per cent – 49 per cent) is achieved in the failed subject;
- the failed subject is not a prerequisite for any other subject in the course.

The granting of a Stage Completion is at the discretion of the Head of School and is not regarded as a pass in the failed subject.

DEFERMENT FROM AWARD COURSE
The following rules apply to the courses of the School and are in addition to University regulations governing these areas.

- Approval of deferment is not automatic.
- Each application to defer will be dealt with on an individual basis by the School Administrator in consultation with appropriate academic staff members.
- A deferment will not be granted to VTAC applicants requesting a deferment at their first enrolment session. Students who fall into this category will be advised to re-apply for a place at the end of the year.
- In normal circumstances students must have successfully completed at least one semester of study, by passing at least 50 per cent of subjects undertaken, to be eligible for deferment.
- Except under exceptional circumstances students may apply to defer their studies for a total period not exceeding twelve months.

- Deferral will not normally be granted until consultation has taken place with the Course Co-ordinator (or nominee) and/or a student counsellor.
- Students failing to re-enrol at the end of their deferment period will automatically be withdrawn from their course of study.

FURTHER INFORMATION
For further information please contact the School of Biomedical Sciences on (03) 9919 2691 or fax (03) 9919 2465.

BIOLOGY AND GENERAL SCIENCE TEACHING FOR PHYSICAL EDUCATION GRADUATES
The School of Biomedical Sciences and the Sustainability Group have arranged elective subjects to assist Physical Education and Recreation students planning a secondary teaching career. The School offers two elective programs designed to facilitate the entry of Bachelor of Applied Science – Physical Education graduates into a second teaching method in a Diploma of Education course and to subsequently gain registration with the Ministry of Education to teach either Biology or General Science, in addition to Physical Education.

To obtain registration in General Science, the Ministry of Education requires that students take subjects equivalent to one quarter of the first year of their Bachelor of Applied Science course in each of two science areas, both of which have the potential to be extended to sub-majors. A sub-major in a science area is defined by the Ministry as a commitment of one quarter of the first year load and one quarter of the second year load to subjects in this science area.

The physical education degree at Victoria University, Footscray Park Campus, is based upon a unit system such that one semester-hour of contact is equivalent to one unit. Since the degree requires a minimum of 144 units (48 units per year), then one quarter of a year corresponds to 12 units. To obtain General Science registration based upon chemistry and biology therefore, requires at least 12 units devoted to chemistry and 12 units to biology in the first year of the degree.

To obtain registration in biology, it is necessary to take sufficient biology subjects to constitute a sub-major, i.e. at least 12 units of biology in first year and 23 units of biology in second year.

Details of the two streams of study are set out below; the code number is given for each subject.

General Science Stream
RCS1006 Chemistry 1
RBM1518 Human Physiology 1 or RBF1310 Biology 1
RBM1528 Human Physiology 2 or RBF1320 Biology 2
RBM2260 Diet and Nutrition

Biology Stream
RBM2360 Medical Microbiology
RBM1518 Human Physiology 1 or RBF1310 Biology 1
RBM1528 Human Physiology 2 or RBF1320 Biology 2
RBM2260 Diet and Nutrition
RBM3264 Advanced Nerve and Muscle Physiology
RBF2610 Fundamentals of Ecology
RBF2620 Australian Plants
RBF2640 Australian Animals
RBF3600 Aquatic Ecology
**BACHELOR OF SCIENCE IN BIOMEDICAL SCIENCES**
Course Code: SBBS  
CRICOS No: 023699C

**COURSE OBJECTIVES**
The Bachelor of Science in Biomedical Sciences is designed to provide professional training in the application of science to human biology in the market place. The course aims to produce highly flexible but well-trained graduates who will be adequately equipped to adapt to a changing environment. Four different streams are available for this degree in Biomedical Sciences including wellness management, science media and communications, marketing of biomedical products, and medical research/clinical sciences. Although, students are encouraged to follow one of these streams, they are able to choose from the entire range of subjects offered in the Biomedical Sciences degree. The overall objectives of the degree in Biomedical Sciences are to provide graduates with an excellent knowledge of human physiological functions together with skills in critical analysis and with highly developed communication skills. Complementary knowledge will be developed in a wide range of selected disciplines including psychology, human development, management, marketing, visual and audiovisual communications and a language.

The Wellness Management stream is designed to produce graduates with an understanding of human function. Graduates will be eligible for employment as Wellness consultants either in private practice or within government agencies, large companies or corporations. The Science, Media and Communications specialisation is more specifically designed to produce graduates who would be knowledgeable in human biology and biomedical sciences. Graduates would have a broad education, being highly literate and articulate in specialised areas such as an Asian Language, Professional Writing, and Communications. Graduates in the Management and Marketing of Biomedical Products stream will have an in-depth knowledge of basic human biological function combined with specialised skills in either human resource management or in marketing. This combination of skills appears to be unique in Australia as there seems to be no other course in Australia with this combination of subjects. The Medical Research/Cl inical Sciences stream will provide students with a range of skills appropriate to leading edge medical research. This degree offers a range of subjects appropriate for further postgraduate study in medical and paramedical fields.

**DURATION OF THE COURSE**
The course will be equivalent to three years of full-time study for students entering the course at Year 1 or part-time equivalent.

**ADMISSION REQUIREMENTS**

**UNITS 3 AND 4 ENGLISH**

**MIDDLE BAND SELECTION**
Completing Biology and/or Chemistry can lead to an ENTER 3.5 points higher per study.

**LOCATION**
The course is currently offered at the St Albans Campuses, but individual subjects may be offered at the Footscray or Werribee Campuses.

**COURSE STRUCTURE**
The course will comprise of two 12 week semesters or 24 weeks per year for three years. The course outline together with the contact hours per week is contained in the following pages. First year subjects listed are currently running at the St Albans Campus. Electives may be taken from the wide range of science and general subjects listed below. Other suitable electives (not listed below) may also be chosen subject to the approval of the course co-ordinator. If general electives are selected, students are encouraged to take a four–six semester sequence in one of the following areas including Human Resource Management, Marketing, Communications, Psychology, Professional Writing or a language other than English. Electives will be offered subject to adequate demand.

Students enrolled in the Biomedical Science course Degree must take a minimum of 60 per cent of their total credit points from subjects offered by the School of Biomedical Sciences. In addition, no more than 40 credit points from general elective subjects shall be at first year level, and at least one elective shall be commensurate with the year of the student’s course.

### Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Points</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>RBM1501</td>
<td>Foundations in Biomedical Sciences A</td>
<td>1</td>
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<tr>
<td>RBM1514</td>
<td>Functional Anatomy 1</td>
<td>1</td>
<td>12</td>
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<tr>
<td>RBM1518</td>
<td>Human Physiology 1</td>
<td>1</td>
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<td>RBM1524</td>
<td>Foundations in Biomedical Science B</td>
<td>2</td>
<td>12</td>
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<td>RBM1528</td>
<td>Human Physiology 2</td>
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<tr>
<td>RCS1110</td>
<td>Chemistry for Biological Sciences A</td>
<td>1</td>
<td>12</td>
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<td>APP1012</td>
<td>Psychology 1A</td>
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<td>RCS1120</td>
<td>Chemistry for Biological Sciences B</td>
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<td>APP1013</td>
<td>Psychology 1B</td>
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Other electives 1 or 2 12

### Year 2

<table>
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<tbody>
<tr>
<td>RBM2260</td>
<td>Diet &amp; Nutrition</td>
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<td>RBM2530</td>
<td>Pathophysiology 1</td>
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<td>RBM2540</td>
<td>Pathophysiology 2</td>
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<td>RBM2800</td>
<td>Cardiorespiratory &amp; Renal Physiology</td>
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<td>RBM1580</td>
<td>Functional Anatomy 3.1</td>
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<tr>
<td>RBM2360</td>
<td>Medical Microbiology</td>
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<td>RBM2560</td>
<td>Medical Biochemistry</td>
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<tr>
<td>RBM2610</td>
<td>Biomedical Sciences &amp; Society 1,2</td>
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<td>RBF2330</td>
<td>Cell Biology</td>
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<td>RBM2580</td>
<td>Advanced Functional Anatomy</td>
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<tr>
<td>RBM3610</td>
<td>Bioscience, Ethics &amp; Values 1,2,4</td>
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Other electives 1 or 2 12

### Year 3

Choose at least three of following core subjects below per semester

<table>
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<tbody>
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<td>RBM3264</td>
<td>Advanced Nerve &amp; Muscle Physiology 4</td>
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<td>RBM3550</td>
<td>Growth &amp; Early Development 1,4</td>
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<td>RBM3590</td>
<td>Advanced Experimental Techniques 3,4</td>
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<td>RBM3720</td>
<td>Immunology</td>
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<td>RBM3810</td>
<td>Wellness 1,2</td>
<td>1</td>
<td>12</td>
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<tr>
<td>RBM3540</td>
<td>Advanced Neurosciences</td>
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<td>RBM3560</td>
<td>Growth, Development and Ageing 1,4</td>
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<tr>
<td>RBM3660</td>
<td>Human Developmental &amp; Clinical Genetics 4</td>
<td>2</td>
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<td>RBM3800</td>
<td>Pharmacology 2,4</td>
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<td>RBM3820</td>
<td>Wellness 2,3</td>
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<td>12</td>
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<tr>
<td>RBM3910</td>
<td>Project 1,2,3,4</td>
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37
### Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Points</th>
</tr>
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<tbody>
<tr>
<td>RBM3650</td>
<td>Advanced Reproduction &amp; Development</td>
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<tr>
<td>RBM3960</td>
<td>Nutritional Frontiers</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Other electives (1 or 2)</td>
<td>12</td>
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</tbody>
</table>

1. Students in the Wellness Management stream are encouraged to take these electives (students in the Wellness stream who decide to focus on individual and social issues in mental health should choose Psychology 2A and 2B).
2. Students in the Science, Media and Communication stream are encouraged to take these electives.
3. Students in the Management and Marketing of Biomedical Products stream are encouraged to take these electives.
4. Students in the Medical Research and Clinical Sciences stream are encouraged to take these electives.

### Bachelor of Science in Nutritional Therapy

**Course Code: SBNT**

Nutritional Therapy is founded in medical science and on peer-reviewed evidence-based research. Nutritional Therapists use manipulation of food and diet for therapeutic purposes. Often a patient’s condition can be improved by suitably matching food intake to their condition, together with nutriceutical prescription and appropriate lifestyle advice. The graduates from this course will not be Dieticians, but will be able to treat chronic non-life threatening conditions.

This course is modelled on the highly successful BSc Nutritional Therapy courses offered in Europe. At present there is no similar course in Nutritional Therapy in Australia, and this course will be the first in Australasia.

### Course Objectives

The Bachelor of Science in Nutritional Therapy will provide an alternative education and training program for those wishing to apply their knowledge of Nutrition to the treatment of a range of clients by high-quality nutrition care and therapy. The objectives of the course are to produce Graduates able to function independently as Nutritional Therapists. At the end of the course, Graduates will be able to: evaluate and process requests for nutritional therapy; assess the client and formulate an appropriate course of nutritional therapy; educate the client in self-care therapy, and evaluate the client’s response to the course of treatment.

The Graduates of this course will be able to make a valuable contribution to society as Nutritional Therapists in private practice, as Nutrition Consultants to the healthcare and fitness industries, and as practitioners in integrated health centres.

### Course Structure

#### Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Points</th>
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<tbody>
<tr>
<td>RBF3240</td>
<td>Functional Foods</td>
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<tr>
<td>RBF3260</td>
<td>Diet and Nutrition</td>
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<tr>
<td>RBM2530</td>
<td>Pathophysiology 1</td>
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<td>RBM2540</td>
<td>Pathophysiology 2</td>
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<td>RBM2550</td>
<td>Medical Biochemistry</td>
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<tr>
<td>RBM3950</td>
<td>Nutritional Therapeutics C</td>
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<tr>
<td>RBM3955</td>
<td>Nutritional Therapeutics D</td>
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<td>RBM3960</td>
<td>Nutrition Frontiers</td>
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<tr>
<td>RBM3970</td>
<td>Operating a Clinical Practice</td>
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### Year 2

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<td>HHN0021</td>
<td>Counselling Skills for Natural Medicine Practitioners</td>
<td>12</td>
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<tr>
<td>RBF3240</td>
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<tr>
<td>RBM2260</td>
<td>Diet and Nutrition</td>
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<td>Medical Biochemistry</td>
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### Year 3

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<td>RBM3820</td>
<td>Wellness 2</td>
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<td>RBM3850</td>
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<td>Nutritional Therapeutics D</td>
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<tr>
<td>RBM3950</td>
<td>Nutritional Therapy in Practice 1</td>
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<td>RBM3955</td>
<td>Nutritional Therapy in Practice 2</td>
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<tr>
<td>RBM3970</td>
<td>Operating a Clinical Practice</td>
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</tbody>
</table>

### Bachelor of Science in Occupational Health and Safety

**Course Code: SBOH**

### Course Objectives

The aims of the courses are to produce graduates with a combination of knowledge and skills of science and disciplines related to occupational health and safety while having a focus on the management of occupational health and safety.

At the end of the course graduates should be able to: utilise methods of scientific investigation in solving, occupational health and safety problems; thoroughly understand the scientific and technological bases of occupational health and safety; engender the professional confidence and respect of others; identify health hazards and safety problems and be able to make appropriate recommendations to management; understand and be able to effectively participate in decision-making processes in organisations in order to manage the promotion and implementation of occupational health and safety matters; act as an agent of change to improve OH&S at a workplace.

### Admission Requirements

Normal entry requirements for articulation to the Bachelor of Science is the successful completion of a Diploma in Occupational Health and Safety that is equivalent with the course undertaken at Swan TAFE. A significant number of such applicants are expected to be occupational health and safety professionals seeking to upgrade their Diploma qualifications to a degree in Occupational Health and Safety. Admission requirements may be varied by the Head of School for applicants who possess other appropriate TAFE or university qualifications related to occupational health and safety.
Students with a Diploma in Health Occupational Health and Safety, will complete 13 units to upgrade their qualification to a Bachelor of Science in Occupational Health and Safety. Students who enrol with a Diploma of Science in Occupational Health and Safety that is not equivalent with subjects undertaken at Swan TAFE may need to undertake a mix of additional units if they wish to upgrade to a degree.

The course aims at maximising student access by providing flexibility and modulation in the delivery of subjects. Block mode teaching delivered at Swan TAFE, Western Australia, is available. Students complete all units by distance education mode.

**COURSE DURATION**

Students who enrol into the degree course with a Diploma in Occupational Health and Safety (equivalent with Swan TAFE Diploma OHS) may complete the upgrade after two years of part-time study. Students with other qualifications may need to complete additional subjects.

**COURSE STRUCTURE**

Level 3 Subjects required to upgrade from Diploma in Health-Occupational Health and Safety to Bachelor of Science in Occupational Health and Safety.

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
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<tbody>
<tr>
<td>RBM2061</td>
<td>Occupational Hygiene Science</td>
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<td>RBM2161</td>
<td>Ergonomic Science</td>
<td>12</td>
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<tr>
<td>RBM2261</td>
<td>Public and Environmental Health</td>
<td>12</td>
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<tr>
<td>RBM2361</td>
<td>Safety Practice</td>
<td>12</td>
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<tr>
<td>RBM3061</td>
<td>Epidemiology</td>
<td>12</td>
</tr>
<tr>
<td>RBM3161</td>
<td>Toxicology</td>
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<tr>
<td>RBM3261</td>
<td>Risk Management</td>
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<tr>
<td>RBM3361</td>
<td>Occupational Health &amp; Safety Project</td>
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</table>

**BACHELOR OF SCIENCE (HONOURS) IN BIOMEDICAL SCIENCES**

Course Code: SHBM

RBM4000 Science Honours will comprise a research project including two oral presentations, a literature review and the project thesis.

**HONOURS COURSE WORK**

There will be two course work units comprising of Advanced Experimental Design and Statistics, and Research Conduct, Ethics and Training. In special cases undergraduate units of studies may be substituted for course work units when it is felt that a student would require further studies of a specialised nature. The lecture or reading programs that make up the course work units will be determined by student’s preferences and will vary from time to time. Course work units will be assessed by oral presentations, written assignments or a written examination.

**BACHELOR OF SCIENCE/ BACHELOR OF PSYCHOLOGY**

**Double Degree**

Course Code: SBSP

CRICOS No: 047051A

**COURSE OBJECTIVE**

The overall objective of the combined Bachelor of Science/Bachelor of Psychology is to provide graduates with an excellent knowledge of human physiological and psychological function together with highly developed skills in critical analysis, social research methods and communication. The psychology units in this degree comprise an approved sequence for registration with the Australian Psychological Society for entry into a fourth year program. Students will be equipped to enter careers in counselling, health promotion, laboratory science or as crime scene officers. With further study, students will be equipped for employment as clinical psychologists or medical research scientists.

**COURSE DURATION**

The course is offered over four years on a full-time basis or part-time equivalent.

**COURSE STRUCTURE**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Subject</th>
<th>Credit Points</th>
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<tbody>
<tr>
<td>RBM1518</td>
<td>Human Physiology 1</td>
<td>1 12</td>
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<tr>
<td>RBM1514</td>
<td>Functional Anatomy 1 (Head and neck)</td>
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<tr>
<td>APP1012</td>
<td>Psychology 1A</td>
<td>1 12</td>
</tr>
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<td>AXF1001</td>
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<td>RBM1528</td>
<td>Human Physiology 2</td>
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<tr>
<td>RBM1524</td>
<td>Functional Anatomy 2 (Thorax and Trunk)</td>
<td>2 12</td>
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<tr>
<td>APP1013</td>
<td>Psychology 1B</td>
<td>2 15</td>
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<tr>
<td>AXF1002</td>
<td>Knowing and Knowledge B or Arts elective</td>
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<td>Total</td>
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<tr>
<td>RCS1110</td>
<td>Chemistry for Biological Sciences A*</td>
<td>3 12</td>
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<tr>
<td>APP2013</td>
<td>Psychology 2A</td>
<td>3 12</td>
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<tr>
<td>APP2031</td>
<td>Developmental issues in Psychology</td>
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<td>Total</td>
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<tr>
<td>RCS1120</td>
<td>Chemistry for Biological Sciences *</td>
<td>4 12</td>
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<tr>
<td>APP2014</td>
<td>Psychology 2B</td>
<td>4 12</td>
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<tr>
<td>APS2040</td>
<td>Quantitative Social Research Methods</td>
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<tr>
<td>Total</td>
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</table>

*Alternative Biomedical Sciences units below may be substituted for Chemistry for Biological Sciences A and B subject to the approval of the course co-ordinator

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Subject</th>
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<tbody>
<tr>
<td>RBM1580</td>
<td>Functional Anatomy 3</td>
<td>1 12</td>
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<tr>
<td>RBM2360</td>
<td>Medical Microbiology</td>
<td>1 12</td>
</tr>
<tr>
<td>RBM2610</td>
<td>Biomedical Sciences &amp; Society</td>
<td>1 12</td>
</tr>
<tr>
<td>RBF2330</td>
<td>Cell Biology</td>
<td>2 12</td>
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<tr>
<td>RBM2580</td>
<td>Advanced Functional Anatomy</td>
<td>2 12</td>
</tr>
<tr>
<td>RBM3610</td>
<td>Bioscience, Ethics and Values</td>
<td>2 12</td>
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Other electives as available – can include first year units 1 or 2 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Subject</th>
<th>Credit Points</th>
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<tbody>
<tr>
<td>RBM2260</td>
<td>Diet and nutrition</td>
<td>5 12</td>
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<tr>
<td>RBM2560</td>
<td>Medical Biochemistry</td>
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<td>or</td>
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<tr>
<td>RBM2360</td>
<td>Medical Microbiology</td>
<td>5 12</td>
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</table>
FACULTY OF HEALTH, ENGINEERING AND SCIENCE

APP3035 Research methods in psychology 5 12
APS2030 Qualitative research methods 5 12
RBM2800 Cardiorespiratory & renal physiology 6 12
RBM3610 Biomedical science, ethics and values or
  RBF2330 Cell biology 6 12
APP3037 Clinical issues in Psychology
  Psychology elective 12
APP3036 History and theories of Psychology 7 12
APP3023 Psychological issues in the workplace
  (Capstone task) 7 12
Third year Biomedical Sciences unit 7 12
Third year Biomedical Sciences unit 7 12
RBM3910 Biomedical Sciences Project 8 12
Third year Biomedical Sciences unit 8 12
Psychology elective 8 12
Psychology elective 8 12

THIRD YEAR BIOMEDICAL SCIENCE UNITS
RBM3264 Advanced Nerve & Muscle Physiology 1 12
RBM3550 Growth and Early Development 1 12
RBM3590 Advanced Experimental Techniques 1 12
RBM3720 Immunology 1 12
RBM3810 Wellness 1 1 12
RBM3540 Advanced Neurosciences 2 12
RBM3560 Growth, Development and Ageing 2 12
RBM3660 Human Developmental and
  Clinical Genetics 2 12
RBM3800 Pharmacology 2 12
RBM3820 Wellness 2 2 12
RBM3650 Advanced Reproduction and
  Development 1 12
RBM3960 Frontiers in Nutrition 2 12
Other electives 1 or 2 12

PSYCHOLOGY ELECTIVE UNIT OPTIONS
APP3015 Counselling theory and practice 12
APP3016 Group Behaviour 12
APP3018 Organisations and Work 12
APP3019 Psychobiology 12
APP3020 Psychoanalysis 12
APP3021 Psychology of adjustment 12
APP3025 Psychological assessment 12

Course Total 384

Arts elective units that can be substituted for Knowing and
Knowledge in first year (These are all at St Albans Campus)

ACC1047 Culture and Communication
ACC1048 Media, culture and society
ACL1001 Reading contemporary fiction
ACL1002 Studying poetry and poetics
ACP1053 Introduction to creative writing
ACP1054 Introduction to media writing
ACS1071 Spanish A: Basic Spanish 1
ACS1072 Spanish B: Basic Spanish 2
ACW1020 Sex and gender
ACW1021 Fashioning gender
ASS1012 Sociology 1A – Introduction to Australian society
  and cultures
ASS1013 Sociology 1B – Issues in Australian Society
  and Culture
SCHOOL OF COMPUTER SCIENCE AND MATHEMATICS

The School of Computer Science and Mathematics offers undergraduate courses leading to the award of:

- Bachelor of Science;
  - Computer Science;
  - Computer and Mathematical Sciences;
  - Internet Technologies and Applications;
  - Information Technology;
  - Computational Financial Mathematics;
  - Computer Science and Aviation;
- Bachelor of Science (Honours);
  - Computer Science;
  - Computer and Mathematical Sciences.

The School of Computer Science and Mathematics offers a number of postgraduate and undergraduate programs in Computer Science and Computer & Mathematical Sciences by course work and by research.

Our courses equip graduates with the analytical ability, factual knowledge and communication skills to enable them to work effectively in business and industry. A significant feature of the courses is the effort made to involve students in the solution of real world problems.

Recent experience indicates that graduates can expect to find employment in industry, commerce and government in areas such as software engineering, programming, information systems, quality management, statistical analysis, economic planning, systems development, market research, production planning and secondary teaching.

Graduates are eligible for membership of the Australian Computer Society at the professional level (which is the highest possible level for students) and the Institute of Mathematics and its Applications (UK).

The School also offers Computer Science degree programs in Hong Kong, Malaysia, and Sydney. Postgraduate programs in Computer Science are also conducted in Hong Kong.

We invite you to spend some time on our website to find out more about the School and its staff, its courses and research interests.

Details of the School’s research activities and postgraduate degree programs are described in the Postgraduate Studies section of the Handbook.

The School has a large enrolment of both local and international students. Some programs are offered offshore in Hong Kong and other parts of Asia.

The Bachelor of Science awards have a large degree of commonality of subjects in first year which facilitates possible transfer between courses.

COMPUTER FACILITIES

The School has a number of computing laboratories for teaching and research. These laboratories are equipped with the latest equipment such as Pentium PCs, Unix workstations, high speed line printers and laser printers. Graphical user interfaces and menu-driven interfaces are provided for easy access to services. Recent acquisitions include multimedia facilities.

ARTICULATION PATHWAYS

Holders of a TAFE Associate Diploma in Information Technology may be admitted into Year One of the School’s undergraduate courses.

Special advanced admission provisions apply to certain overseas Diploma and Higher Diploma qualifications.

ASSESSMENT

Assessment in subjects is designed to monitor a student’s progress and achievement as well as contribute to and enhance their learning. Normally a prescribed range of assessment methods is employed in any subject.

Assessment is by a combination of written assignments, tests, laboratory work and examinations.

Supplementary assessment is not normally available in any subject except at the discretion of the Head of School in exceptional circumstances.

Special Consideration in assessment may be granted on the grounds defined by the University Statutes.

Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included in final examination papers.

Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.

COURSE REGULATIONS

PROGRESS REGULATIONS

The Academic Progress Committee will, at the end of each semester consider the results and progress of all students enrolled in the courses.

Progression through each course is based on the following guidelines:

(i) Where any compulsory subject must be repeated, enrolment in that subject must be at the first opportunity following the initial failure;

(ii) Students will not normally be allowed to enrol in any subject for which at least a P grade has not been attained in any of the prerequisite subjects;

(iii) Student enrolment will not normally be approved where the total proposed subject hours exceeds the normal semester load.

COMPLETION BY COMPENSATION

No stage completions by compensation will be granted.

UNSATISFACTORY PROGRESS

These regulations should be read in conjunction with the Victoria University Statute 6.4.1 – Unsatisfactory Progress.

(i) The following shall constitute unsatisfactory progress:

(a) failure in at least 50 per cent of the assessed subjects for which a student has enrolled in a semester of study;
(b) failure in any subject twice;
(c) transgression of a conditional enrolment stipulation and agreement.

(ii) Where a student’s progress is unsatisfactory, the section Academic Progress Committee may recommend the following:

(a) a restricted and conditional enrolment only be approved;
(b) exclusion from the course.
A student who wishes to appeal against the section’s written recommendation is required to do so in accordance with the University Statutes. The procedures to be followed in lodging a submission, hearing of submissions and communicating the results of hearings are set out in the University Statutes.

(d) Excluded students have no right of re-admission to the course from which they were excluded. Students who have been excluded may apply for re-admission not less than one calendar year from the date of the exclusion. Students must provide, with their application, evidence of changed circumstances which significantly improve the applicant’s likelihood of academic success.

PROFESSIONAL RECOGNITION
Graduates are eligible for membership of the Australian Computer Society at the professional level.

BACHELOR OF SCIENCE IN COMPUTER SCIENCE
Course Code: SBCO
CRICOS No: 023700D

BACHELOR OF SCIENCE IN COMPUTER AND MATHEMATICAL SCIENCES
Course Code: SBCM
CRICOS No: 002814A

COURSE OBJECTIVES
The two programs both aim to provide graduates with the analytical ability, factual knowledge and communication skills that will suit them for employment in business and industry in one or more of the following areas:

• computing: programming, software development, systems design and analysis, applications development, technical support.
• statistics: data analysis, quality improvement, market research, forecasting, econometrics.
• operations research: production planning and scheduling, simulation studies, transportation planning, resource allocation.
• financial modelling: investment analysis, project evaluation.
• secondary teaching: mathematics, computer science.

One of the most significant features of the courses is the attempt to involve students in the solution of real world problems. Naturally, problem-solving is a large component of all the subjects taught in the course but, starting in the first year, special emphasis is placed on problem formulation and report writing.

All students undertake at least one industry project in the third year of the course. These projects tend to be related to problems encountered in specific areas of the manufacturing industry, banking or finance, government statutory authorities, or services such as hospitals and local councils.

As evidenced by the high rate of job placement in the areas listed above, graduates have been well-received in industry, commerce and government.

ADMISSION REQUIREMENTS
To qualify for admission to the course an applicant should have successfully completed Year 12 of the Victorian Certificate of Education (VCE), with a study score of at least 20 in English and 22 in Mathematical Methods, or have the equivalent of these qualifications. Completing Specialist Mathematics leads to an ENTER score 3 points higher.

Alternatively, entry is via TAFE articulation or under mature age provisions.

COURSE DURATION
The courses are offered on a full-time basis over three years. Summer evening subjects are also offered to assist these students to complete their studies.

COURSE STRUCTURE

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LIST A
- Data Communications and Networks 1
- Operating Systems
- Multimedia Systems Design
- Computer Graphics
- Database Systems 2
- Object Oriented Programming 1
- Software Development
- Advanced Programming
- Network Operating Systems Administration
- Advanced Internet Programming
- 3D Web Technologies
### LIST B
- RCM3111 Data Communications & Networks 2
- RCM3112 User Interface Design
- RCM3115 Architectures for Enterprise Wide Computing
- RCM3211 Database Systems 3
- RCM3311 Object Oriented Programming 2
- RCM3312 Intelligent Systems
- RCM3313 Software Engineering 2
- RCM3314 Object Oriented Analysis and Design
- RCM3820 Internet Computing using XML
- RCM3950 Internet Data Management
- RCM3960 Internet Security
- RCM3970 Computer Graphics for Game Programming

### LIST C
- RCM1712 Mathematical Foundations 2
- RCM2321 Mathematics of Continuous Processes B
- RCM2511 Image Processing 1
- RCM2611 Linear Statistical Models
- RCM2612 Forecasting
- RCM2614 Statistical Data Mining
- RCM2712 Mathematics of Continuous Processes A
- RCM2713 Modelling for Decision Making
- RCM2911 Linear Optimisation Modelling
- RCM2912 Project Scheduling
- RCM2913 Stochastic and Combinatorial Optimisation
- RCM3511 Image Processing 2
- RCM3611 Regression Analysis
- RCM3613 Time Series Analysis
- RCM3615 Multivariate Statistics
- RCM3617 Quality Improvement and Experimental Design
- RCM3711 Computational Methods
- RCM3720 Cryptography, Computer and Network Security
- RCM3911 Simulation

To qualify for the award of Bachelor of Science in Computer Science, a total of 288 credit points are needed. No stage completions exist for this course.

Additionally, students must complete a minimum of 3 subjects from List A and 5 subjects from List B.

### COMPUTER AND MATHEMATICAL SCIENCES

#### Year 1

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(for those that did ACE1145 in Semester One and this replaces the 1st year elective)

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One elective from list B below  
One elective from lists A, B, C or D below  
(each worth 12 credit points)  

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### Undergraduate Studies

#### LIST A
- RCM3111 Data Communications & Networks 2
- RCM3112 User Interface Design
- RCM3115 Architectures for Enterprise Wide Computing
- RCM3211 Database Systems 3
- RCM3311 Object Oriented Programming 2
- RCM3312 Intelligent Systems
- RCM3313 Software Engineering 2
- RCM3314 Object Oriented Analysis and Design
- RCM3820 Internet Computing using XML
- RCM3950 Internet Data Management
- RCM3960 Internet Security
- RCM3970 Computer Graphics for Game Programming

#### LIST B
- RCM2321 Mathematics of Continuous Processes B
- RCM2511 Image Processing 1
- RCM2612 Forecasting
- RCM2614 Statistical Data Mining
- RCM2712 Mathematics of Continuous Processes A
- RCM2713 Modelling for Decision Making
- RCM2911 Linear Optimisation Modelling
- RCM2912 Project Scheduling
- RCM2913 Stochastic and Combinatorial Optimisation
- RCM3511 Image Processing 2
- RCM3611 Regression Analysis
- RCM3613 Time Series Analysis
- RCM3615 Multivariate Statistics
- RCM3617 Quality Improvement and Experimental Design
- RCM3711 Computational Methods
- RCM3720 Cryptography, Computer and Network Security
- RCM3911 Simulation

#### LIST C
- RCM1712 Mathematical Foundations 2
- RCM2321 Mathematics of Continuous Processes B
- RCM2511 Image Processing 1
- RCM2612 Forecasting
- RCM2614 Statistical Data Mining
- RCM2712 Mathematics of Continuous Processes A
- RCM2713 Modelling for Decision Making
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- RCM2913 Stochastic and Combinatorial Optimisation
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- RCM3611 Regression Analysis
- RCM3613 Time Series Analysis
- RCM3615 Multivariate Statistics
- RCM3617 Quality Improvement and Experimental Design
- RCM3711 Computational Methods
- RCM3720 Cryptography, Computer and Network Security
- RCM3911 Simulation

### Assessment

Assessment for each subject is detailed in the subject listings.
BACHELOR OF SCIENCE IN INTERNET TECHNOLOGIES AND APPLICATIONS

Course Code: SBIA
CRICOS No: 052405D

COURSE OBJECTIVES
Internet and web-based computing has in recent years assumed a huge importance in industry, for theoretical and applied computer science, and research.

This course has been established to provide students with the fundamental background for the development and maintenance of Internet and web-based services. A new Internet Technologies and Applications Research Lab has been established recently to support academic and research activities in the areas.

COURSE DURATION
The course is offered over three years full-time and part-time equivalent.

ADMISSION REQUIREMENTS
To qualify for admission to the course an applicant should have successfully completed Year 12 of the Victorian Certificate of Education (VCE), with a study score of at least 20 in English and 22 in Mathematical Methods or have the equivalent of these qualifications.
Alternatively, entry is via TAFE articulation or under mature age provisions.

COURSE STRUCTURE

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To qualify for the award of Bachelor of Science in Internet Technologies and Applications, a total of 288 credit points are needed. No stage completions exist for this course.
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY
Course Code: SBIT
CRICOS No: 052403F

COURSE OBJECTIVES
The course aims to equip students with the skills required to deal with advanced data processing. Students will develop skills and conceptual understanding needed to design, install, configure and manage various advanced data management technologies, and to develop data management processes at both the intranet and Internet level for modern organizations and enterprises.

On completion of the course, students will:
• have acquired skills in the development of database applications such as relational, object-oriented and multimedia systems;
• be familiar with online transaction and application processing;
• be able to design, install, configure and maintain various data storage systems;
• have a sound understanding and competence in the use of technologies that are utilised in data warehousing and data mining;
• have a sound understanding of distributed systems, including the ability to establish and maintain data storage strategies within local area networks, wide area networks, and across the Internet.

COURSE DURATION
The course is offered over three years full-time and part-time equivalent.

ADMISSION REQUIREMENTS
To qualify for admission to the course an applicant should have successfully completed Year 12 of the Victorian Certificate of Education (VCE), with a study score of at least 20 in English and 22 in Mathematical Methods or have the equivalent of these qualifications.

Alternatively, entry is via TAFE articulation or under mature age provisions.

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- RCM2113 Multimedia Systems Design
- RCM2213 Computer Graphics
- RCM2218 Database Systems 2
- RCM2311 Object Oriented Programming 1
- RCM2313 Software Development
- RCM2315 Advanced Programming
- RCM2316 Network Operating Systems Administration
- RCM2810 Advanced Internet Programming
- RCM2930 3D Web Technologies

LIST B
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- RCM3115 Architectures for Enterprise Wide Computing
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- RCM3312 Intelligent Systems
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- RCM3314 Object Oriented Analysis and Design
- RCM3820 Internet Computing using XML
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- RCM3970 Computer Graphics for Game Programming

LIST C
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- RCM2511 Image Processing 1
- RCM2611 Linear Statistical Models
- RCM2612 Forecasting
- RCM2614 Statistical Data Mining
- RCM2712 Mathematics of Continuous Processes A
- RCM2713 Modelling for Decision Making
- RCM2911 Linear Optimisation Modelling
- RCM2912 Project Scheduling
- RCM2915 Stochastic and Combinatorial Optimisation
- RCM3511 Image Processing 2
- RCM3611 Regression Analysis
- RCM3613 Time Series Analysis
- RCM3615 Multivariate Statistics
- RCM3617 Quality Improvement and Experimental Design
- RCM3711 Computational Methods
- RCM3720 Cryptography, Computer and Network Security
- RCM3911 Simulation

To qualify for the award of Bachelor of Science in Information Technology, a total of 288 credit points are needed. No stage completions exist for this course. Additionally, students must complete a minimum of two electives from List B.
**BACHELOR OF SCIENCE IN COMPUTATIONAL FINANCIAL MATHEMATICS**

Course Code: SBCF  
CRICOS No: 052404E

**COURSE OBJECTIVES**

A great many businesses in the unpredictable world of commerce employ sophisticated and computationally intensive mathematical tools to help corporations determine strategies for market trading and risk profiling. As a result, virtually all major banking, investment and energy companies employ graduates with expertise in mathematics and/or computing.

This course is designed to address this demand by coupling a program in computing and mathematical sciences with a focus on finance and risk management. There is no other undergraduate course in the country, and indeed very few internationally, that seeks to combine Finance with both the disciplines of Computer Science and the Mathematical Sciences in this way.

**COURSE DURATION**

The course is offered over three years full-time and part-time equivalent.

**ADMISSION REQUIREMENTS**

To qualify for admission to the course an applicant should have successfully completed Year 12 of the Victorian Certificate of Education (VCE), with a study score of at least 20 in English and 22 in Mathematical Methods or have the equivalent of these qualifications.

Alternatively, entry is via TAFE articulation or under mature age provisions.

**COURSE STRUCTURE**

<table>
<thead>
<tr>
<th>Year</th>
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<th>Course Code</th>
<th>Course Title</th>
<th>Semester Points</th>
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<td>RCM1711</td>
<td>Mathematical Foundations 1</td>
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<td>RCM1613</td>
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<td>or</td>
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<td>RCM1211</td>
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<td>RCM1614</td>
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<td>*For those doing ACE1145 in Semester One, RCM1614 to be taken over summer semester.</td>
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<td><strong>Year 2</strong></td>
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<td><strong>Year 3</strong></td>
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<td>ACE3145</td>
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<td>RCM3413</td>
<td>Financial Modelling</td>
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<td>RCM3001</td>
<td>Project 1 (Financial Computing)</td>
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<td>RCM3002</td>
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<td>RCM3711</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

**LIST A**

- RCM2111 Data Communications and Networks  
- RCM2218 Database Systems 2  
- RCM2311 Object Oriented Programming 1  
- RCM2313 Software Development  
- RCM2315 Advanced Programming  
- RCM2614 Statistical Data Mining  
- RCM2810 Advanced Internet Programming  
- RCM2911 Linear Optimization Modelling  
- RCM2912 Project Scheduling  
- RCM3112 User Interface Design  
- RCM3311 Object Oriented Programming 2

**LIST B**

- RCM3316 Advanced Mathematical Techniques  
- RCM3613 Time Series Analysis  
- RCM3615 Multivariate Statistics  
- RCM3720 Cryptography, Computer and Network Security  
- RCM3911 Simulation

**LIST C**

- BAO3307 Corporate Finance  
- BAO3403 Investment Portfolio Analysis  
- RCM3940 Computational Risk Modelling

To qualify for the award of Bachelor of Science in Computational Financial Mathematics, a total of 288 credit points are needed. No stage completions exist for this course.

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**BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND AVIATION**

Course Code: SBCA  
CRICOS No: 023702B

**COURSE OBJECTIVES**

The Bachelor of Science in Computer Science and Aviation aims to provide participants with:

- a practical and applied approach to the concepts of computer science and aviation;

- a range of skills in computer science, the mathematical sciences and aeronautical theory subjects at a level sufficient to satisfy the requirements for the issue of a Commercial Pilot’s Licence (CPL), and Instrument Rating.

The specific aims of the course are to provide students with the opportunity to:

- obtain level two accreditation from the Australian Computer Society (ACS) by passing all compulsory computer science subjects, and thus gaining professional recognition;

- develop skills and competence in aviation theory. The course is structured so that students can integrate practical flying training along with their academic studies and if choosing to do so and following the guidelines given, will complete the degree at the same time as qualifying for the issue of a Commercial Pilot’s Licence (CPL) and Command Instrument Rating.
COURSE DURATION

The course is offered over three years full-time and part-time equivalent.

ADMISSION REQUIREMENTS

ORDINARY ADMISSION REQUIREMENTS

To qualify for admission to the course an applicant should have successfully completed Year 12 of the Victorian Certificate of Education (VCE), with a study score of at least 20 in English and 22 in Mathematical Methods, or have the equivalent of these qualifications. Completing Specialist Mathematics leads to an ENTER score 3 points higher.

Alternatively, entry is via TAFE articulation or under mature age provisions. In addition, students must pass the prescribed medical examination conducted by a Civil Aviation Safety Authority-Approved Aviation Medical Examiner in order to be permitted to commence flying training.

Applicants may be interviewed. Consideration by a Faculty panel may be given to relevant work experience, and any other activities undertaken demonstrating ability to achieve in this course.

ADVANCED STANDING

Applicants entering with a Private Pilot’s License or higher will be given full credit for completed aviation subjects and can join the course with advanced standing provided they meet the admission requirements. The course provides existing pilots the opportunity to upgrade their non-flying skills as well as providing them with a degree qualification which is likely to be necessary if they are to further their career in the aviation industry.

COURSE STRUCTURE

<table>
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<tr>
<th>Year 1</th>
<th>Course Code</th>
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<td>RCM1115</td>
<td>Computer Systems &amp; Architecture</td>
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<td>Programming 1</td>
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<td>12</td>
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<td>RCM1711</td>
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<td>RCM1114</td>
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<td>RCA1020</td>
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<td>RCA2030</td>
<td>Navigation and Flight law for the CPL</td>
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<td>RCM2312</td>
<td>Software Engineering</td>
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<td>RCA2040</td>
<td>Aerodynamics for the CPL</td>
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<td>RCA2050</td>
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<td>RCM1211</td>
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Year 3

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<td>12</td>
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<td>RCA3010</td>
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<td>RCA3030</td>
<td>Meteorology and Human Factors for the ATPL</td>
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<td>RCA3040</td>
<td>Flight Planning for the ATPL</td>
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<tr>
<td>RCA3050</td>
<td>Navigation &amp; Air law for the ATPL</td>
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<tr>
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<td>Aerodynamics and Aircraft Systems for the ATPL</td>
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Computing Electives

- RCM2111 Data Communications & Networks 1
- RCM2112 Operating Systems
- RCM2113 Multimedia Systems Design
- RCM2213 Computer Graphics
- RCM2311 Object Oriented Programming 1
- RCM2313 Software Development
- RCM2810 Advanced Internet Programming
- RCM2930 3D Web Technologies
- RCM3960 Internet Security

To qualify for the award of Bachelor of Science in Computer Science and Aviation, a total of 288 credit points are needed. No stage completions exist for this course.

ASSESSMENT

The assessment for each subject is detailed in the subject listing.

BACHELOR OF SCIENCE (HONOURS) IN COMPUTER SCIENCE

Course Code: SHCS

Students who do exceptionally well in their degree studies may be given the opportunity to gain an Honours degree by completing a fourth year of study in a specific field. This year is designed to assist students who may wish to proceed to higher degrees by research, but it also enables students to concentrate their studies more intensely on areas of particular interest.

The Honours year requires students to select coursework units from one of the fields of Computer Science, Statistics, and Operations Research. As well, a minor thesis must be completed.

COURSE STRUCTURE

<table>
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<th>Semester</th>
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<tr>
<td>RCM6827</td>
<td>Research Perspectives in Computer Science</td>
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<tr>
<td>RCM6107</td>
<td>Thesis (4 units)</td>
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Total: 96

UNDERGRADUATE STUDIES
BACHELOR OF SCIENCE (HONOURS) IN COMPUTER AND MATHEMATICAL SCIENCES
Course Code: SHCM

Students who do exceptionally well in their degree studies may be given the opportunity to gain an Honours degree by completing a fourth year of study in a specific field. This year is designed to assist students who may wish to proceed to higher degrees by research, but it also enables students to concentrate their studies more intensely on areas of particular interest.

The Honours year requires students to select coursework units from one of the fields of Computer Science, Statistics, and Operations Research. As well, a minor thesis must be completed.

**COURSE STRUCTURE**

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<th>Code</th>
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<tr>
<td>RCM6107</td>
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<td>RCM6827</td>
<td>Research Perspectives in Computer Science</td>
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<td><strong>Total</strong></td>
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INTERNATIONAL PROGRAMS: OFFSHORE PROGRAM CONDUCTED IN HONG KONG

BACHELOR OF SCIENCE IN COMPUTER SCIENCE
Course Code: SBCO

**COURSE OBJECTIVES**

This course specifically caters for part-time students in Hong Kong who wish to obtain a professional qualification in Computer Science. The course aims to produce graduates who have a sound conceptual foundation including practical understanding of recent developments in computer science and how computer science based techniques may be applied to solve a wide range of problems in business and industry.

**ADMISSION REQUIREMENTS**

Students are admitted at either level 1 or level 2.

**LEVEL 1**

Applicants should have a certificate (or equivalent) qualification with a quantitative background.

**LEVEL 2**

Applicants should have qualifications in Engineering, Science or Computing at the Higher Certificate (or equivalent) level.

**COURSE REGULATIONS**

Students entering the program at level 1 are required to obtain a pass in at least fifteen subjects. Students entering the program at level 2 are required to obtain a pass in at least eleven subjects. Assessment throughout the course consists of tests, assignments, project work and end of semester examinations.

Regulations also include:

(i) A student cannot enrol in any subject without having passed the prerequisite;

(ii) A student cannot undertake a project without having completed what the Academic Committee considers to be a suitable academic preparation;

(iii) The following shall constitute unsatisfactory progress.
    (a) failure in 100 per cent of enrolled subjects.
    (b) failure in any subject twice. (Failures in any examination and subsequent supplementary examination will be considered as having failed the subject once.)

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY
Course Code: SBIT

**COURSE OBJECTIVES**

This course specifically caters for part-time students in Hong Kong who wish to obtain a professional qualification in Information Technology. The course aims to produce graduates who have a sound conceptual foundation including practical understanding of recent developments in Information Technology and how Information Technology based techniques may be applied to solve a wide range of problems in business and industry.

**ADMISSION REQUIREMENTS**

Students are admitted at either level 1 or level 2

**LEVEL 1**

Applicants should have a certificate (or equivalent) qualification with a quantitative background.

**LEVEL 2**

Applicants should have qualifications in Engineering, Science or Computing at the Higher Certificate (or equivalent) level.

**COURSE REGULATIONS**

Students entering the program at level 1 are required to obtain a pass in at least fifteen subjects. Students entering the program at level 2 are required to obtain a pass in at least eleven subjects. Assessment throughout the course consists of tests, assignments, project work and end of semester examinations.

Regulations also include:

(i) A student cannot enrol in any subject without having passed the prerequisite;

(ii) A student cannot undertake a project without having completed what the Academic Committee considers to be a suitable academic preparation;

(iii) The following shall constitute unsatisfactory progress.
    (a) failure in 100 per cent of enrolled subjects.
    (b) failure in any subject twice. (Failures in any examination and subsequent supplementary examination will be considered as having failed the subject once.)

BACHELOR OF SCIENCE IN INTERNET TECHNOLOGIES AND APPLICATIONS
Course Code: SBIA

**COURSE OBJECTIVES**

This course specifically caters for part-time students in Hong Kong who wish to obtain a professional qualification in Internet Technology. The course aims to produce graduates who have a sound conceptual foundation including practical understanding of recent developments in Internet Technology and how Internet Technology based techniques may be applied to solve a wide range of problems in business and industry.
ADMISSION REQUIREMENTS
Students are admitted at either level 1 or level 2

LEVEL 1
Applicants should have a certificate (or equivalent) qualification with a quantitative background.

LEVEL 2
Applicants should have qualifications in Engineering, Science or Computing at the Higher Certificate (or equivalent) level.

COURSE REGULATIONS
Students entering the program at level 1 are required to obtain a pass in at least fifteen subjects. Students entering the program at level 2 are required to obtain a pass in at least eleven subjects. Assessment throughout the course consists of tests, assignments, project work and end of semester examinations.
Regulations also include:
(i) A student cannot enrol in any subject without having passed the prerequisite;
(ii) A student cannot undertake a project without having completed what the Academic Committee considers to be a suitable academic preparation;
(iii) The following shall constitute unsatisfactory progress.
   (a) failure in 100 per cent of enrolled subjects.
   (b) failure in any subject twice. (Failures in any examination and subsequent supplementary examination will be considered as having failed the subject once.)

EXTERNAL PROGRAM CONDUCTED IN SYDNEY

BACHELOR OF SCIENCE IN COMPUTER SCIENCE
Course Code: SBCO
The program is offered at Alpha Beta Colleges in Sydney. The normal entry level is an approved Advanced Diploma of IT (or equivalent) which is normally of eighteen months duration. Graduates of such approved programs will be granted subject exemption equivalent to twelve months (two semesters) of study.

OFFSHORE PROGRAM CONDUCTED IN MALAYSIA

BACHELOR OF SCIENCE IN COMPUTER SCIENCE
Course Code: SBCO
The Bachelor of Science in Computer Science course is offered as an advanced standing program in conjunction with Sunway University College in Malaysia. Suitably qualified students (as determined by the School) are able to complete the final year of the course in Malaysia.

BACHELOR OF SCIENCE IN INTERNET TECHNOLOGIES AND APPLICATIONS
Course Code: SBIA
The Bachelor of Science in Internet Technologies and Applications course is offered as an advanced standing program in conjunction with Sunway College in Malaysia. Suitably qualified students (as determined by the School) are able to complete the final year of the course in Malaysia.
SCHOOL OF ELECTRICAL ENGINEERING

The School of Electrical Engineering offers undergraduate courses leading to the award of:
- Bachelor of Engineering in;
  - Electrical and Electronic Engineering;
- Bachelor of Engineering Science in;
  - Electrical and Electronic Engineering.

The School of Electrical Engineering offers a comprehensive portfolio of undergraduate, postgraduate and research study programs in the fields of applied physics, electrical and electronic engineering and photonics. From 2006 our undergraduate courses will be taught using a Problem Based Learning (PBL) methodology. This is a teaching and learning paradigm which actively engages students in the solution of ‘real world’ problems. Through the solution of these problems the students are guided to learn the necessary technical and non-technical skills which are essential for professional engineers. Experience has shown that the exciting challenges posed by the PBL problems motivates students to achieve higher levels of success than they might have otherwise accomplished. The new PBL courses will be rolled out progressively with first year starting in 2006, second year in 2007 and so on. All courses are designed to have a strong practical bias and include a significant amount of ‘hands-on’ project work component. They are taught in laboratories with modern equipment and computing facilities. As a result, our graduates are highly regarded and sought after by industry.

Details of the School’s research activities and postgraduate degree programs are described in the Postgraduate Studies section of the Handbook.

The School has a large enrolment of both local and international students. The Engineering awards have a common first semesters.

The Bachelor of Engineering Science course is of three years duration and the Bachelor of Engineering course is four years.

DEGREE WITH HONOURS

A Degree with Honours Program is offered concurrently with the fourth year of the ordinary Bachelor of Engineering program. Normally, students entering the final year of a full-time Bachelor of Engineering program (or its equivalent in part-time mode), will be offered honours candidacy, if they have achieved a minimum hour weighted average of 60 per cent over year levels 1 to 3, have not repeated a subject through levels 1 to 3 and have not been granted more than one stage completion by compensation throughout the duration of the course. Fourth year honours degree gradings will be determined by the relevant Examiners Board on the basis of the hour weighted average for year level 4.

COMPUTER FACILITIES

The School has a number of computing laboratories for teaching and research. These laboratories are equipped with the latest equipment such as Pentium PCs, Unix workstations, and high speed line printers and laser printers. Graphical user interfaces and menu-driven interfaces are provided for easy access to services.

RESEARCH

The School’s research activities are quite varied, and attract significant government and private funding. Current research areas include:
- telecommunications;
- microelectronics;
- optical technology;
- automation and energy systems.

Additional research in the School reflects staff expertise that spans electrical and electronic engineering and applied physics.

ADMISSION REQUIREMENTS

Admission to the course will be governed by the University Regulations for undergraduate courses as set out in the Faculty of Health, Engineering and Science Handbook in either of the categories of Normal Entry or Alternative Category Entry. The prerequisite subjects for admission into the first year of the course are based on entry at post Year 12, Victorian Certificate of Education, or equivalent level, and are as follows.

PREREQUISITES UNITS 1 AND 2

Physics

PREREQUISITES UNITS 3 AND 4

Mathematical Methods or Specialist Mathematics, English

MIDDLE BAND SELECTION

Completing Physics and/or Specialist Mathematics gives an ENTER 3 points higher per study.

ADMISSION AT OTHER LEVELS

Full-fee paying international students must have qualifications which are equivalent to those listed above. In addition, they must provide evidence of proficiency in the English language:
- IELTS – an overall band score of 6+, subject to individual profile; or
- TOEFL – a score of 550+, and a test of written English (TWE) score of 5+.

ARTICULATION PATHWAYS

Holders of a TAFE Associate Diploma in Electronics (with appropriate mathematics and results at Distinction level) may be admitted into Year One of the School’s undergraduate courses. If the TAFE Associate Diploma has been completed at High Distinction level, advanced admission to Year Two may be considered. Special advanced admission provisions apply to certain overseas Diploma and Higher Diploma qualifications.

ASSESSMENT

Assessment in subjects is designed to monitor a student’s progress and achievement as well as contribute to and enhance their learning. Normally a prescribed range of assessment methods is employed in any subject.

Assessment is by a combination of written assignments, tests, laboratory work and examinations.

Assessment in PBL components is by means of a portfolio. Students keep a journal of their learning experiences through the solution of the problems which they have been set. Students demonstrate the satisfactory achievement of the various learning outcomes associated with problems.
Supplementary assessment is not normally available in any subject except at the discretion of the Head of School in exceptional circumstances.

Special Consideration in assessment may be granted on the grounds defined by the University Statutes.

Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers.

Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.

The assessment of each subject is detailed in the subject listings.

**COURSE REGULATIONS**

**PROGRESSION AND EXCLUSION**

Each Engineering undergraduate course is specified as a unique set of course subjects. The sequence in which these course subjects are normally studied is specified, firstly, by grouping them in course years and secondly, by specifying prerequisites and/or co-prerequisites for some subjects.

Normally, all of the course subjects in a particular course year should be completed and all prerequisite/co-requisite requirements satisfied before enrolment will be permitted in any subject in a subsequent course year. Enrolment in subjects spanning more than two course years is not permitted.

In order to satisfy the academic requirements for a course award, all course subjects must be completed. Such completion may be obtained by:

(a) being granted exemption in either individual subjects or in course years; and/or

(b) achieving a grade of P (or higher) in the assessment of each subject; and/or

(c) being granted compensation in course years.

A stage grading of ‘Year Completed by Compensation’ may be granted if a student:

(i) has been given final grades in all subjects in the course year; and

(ii) has passed subjects equivalent to more than 80 per cent of total required semester hours for that course year with no assessment at less than N1 grade; and

(iii) has achieved an hour-weighted average mark of at least 50 per cent for all subjects in the year.

A grading of ‘Year Completed by Compensation’ recognises an acceptable overall result but does not constitute a pass in any individual failed subject.

Students who do not satisfy the requirements for a ‘Year Completed by Compensation’ must repeat all failed subjects of that year (or their equivalents) at the earliest opportunity.

Normally, gradings of ‘Year Completed by Compensation’ will not be granted in consecutive years of a course.

Normal progress through a course requires a student to complete any defined course year within one year of equivalent full-time enrolment.

Any of the following may be considered to constitute unsatisfactory progress by a student:

(i) failure in any subject or unit for the third time;

(ii) failure in any subject or unit at N2 level for the second time;

(iii) failure in 50 per cent or more of their assessed enrolment load in any semester or calendar year of study;

(iv) failure to complete any two consecutive course years within three years of equivalent full-time enrolment;

(v) failure to complete the course within the maximum period defined by University Statute;

(vi) failure to meet a conditional enrolment agreement.

As otherwise defined by University Statute and subject to being invited to show cause, a student making unsatisfactory progress will normally be recommended for exclusion from the course.

**PROFESSIONAL RECOGNITION**

All current courses are recognised by Engineers Australia and all new courses are in the process of being submitted for recognition.

The new courses place much more significance on the ‘Professional Engineering Graduate Attributes’ required by industry and necessary to ensure accreditation for the courses and professional recognition and corporate membership for the graduates by Engineers Australia.

The graduate attributes of Engineers Australia closely align with those of the University. The PBL model will enhance industry’s acceptance of the courses and should virtuously ensure recognition and accreditation by Engineers Australia and other professional bodies such as the Institution of Radio and Electronics Engineers, Australia, The Australian Computer Society, the British Computer Society, the Institution of Electrical Engineers (UK) the Institution of Electronic and Electronic Engineers (USA), the Australian Institute of Physics, the Institute of Engineers, Malaysia and other bodies which are parties to the ‘Washington Accreditation’.

**INDUSTRIAL EXPERIENCE**

Candidates applying for the award of an engineering degree must ensure that they have submitted for approval evidence of having undertaken a minimum of 12 weeks industrial experience relevant to the course to satisfy Engineers Australia requirements.

**BACHELOR OF ENGINEERING IN ELECTRICAL AND ELECTRONIC ENGINEERING**

Course Code: EBEE
CRICOS No: 002860F

The Bachelor of Engineering in Electrical and Electronic Engineering is a flexible degree that allows students to specialise in a wide range of disciplinary areas such as Computer Engineering, Software Engineering, Microelectronic Systems, Telecommunications, Power Systems Engineering, Control Systems, Photonics, Robotics and Automation.

The first two years of the course develop the basic concepts in electrical and electronic engineering, computer systems and programming, together with related engineering sciences, mathematics, design projects and laboratory studies. Students have the opportunity to choose their field of specialisation in later years of the course.

**COURSE OBJECTIVES**

The main objectives of the course are to: provide an integrated foundation for electrical disciplinary studies and course specialisation into the particular areas of communication, computer, control, electronic and power engineering; develop attitudes of personal initiative and enquiry in students that may continue to further education and meet the technological changes in their profession; develop oral and written communications and an understanding of society and the engineer’s role in society; provide for professional recognition by the Engineers Australia and other professional bodies.
Only the first year of our new PBL based course is shown in the following course structure. The later years are indicative of the existing (non PBL) course. These later years will be replaced as the PBL course is progressively introduced.

Engineering subject codes commence with ‘V’.
Science subject codes commence with ‘R’.

Year 1

<table>
<thead>
<tr>
<th>Credit Points</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects total 2 x 48 Credit Points</td>
<td></td>
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<tr>
<td>VEF1001 Enabling Sciences 1A</td>
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<tr>
<td>VEF1002 Enabling Sciences 1B</td>
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<tr>
<td>VEF1003 Electrical Fundamentals 1A</td>
<td>12</td>
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<tr>
<td>VEF1004 Electrical Fundamentals 1B</td>
<td>12</td>
</tr>
<tr>
<td>VEB1001 PBL &amp; Engineering Practice 1A</td>
<td>24</td>
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<tr>
<td>VEB1002 PBL &amp; Engineering Practice 1B</td>
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Year 2

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<tr>
<th>Credit Points</th>
<th>Semester Hours</th>
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<tr>
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<tr>
<td>VEL2001 Linear Systems and Mathematics 2A</td>
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<td>VEL2002 Linear Systems and Mathematics 2B</td>
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<tr>
<td>VEH2001 Electronic Systems 2A</td>
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<tr>
<td>VEH2002 Electronic Systems 2B</td>
<td>12</td>
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<tr>
<td>VEC2001 Computer Engineering 2A</td>
<td>12</td>
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<tr>
<td>VAG1001 Engineering Profession 1A</td>
<td>12</td>
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<tr>
<td>VED2002 Engineering Design &amp; Professional Practice 2</td>
<td>12</td>
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<td>VEG2002 Introduction to Engineering Systems 2</td>
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Year 3 A

<table>
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<th>Credit Points</th>
<th>Semester Hours</th>
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<tbody>
<tr>
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<td>*Stream Specialization Subjects A</td>
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<tr>
<td>*Stream Specialization Subjects B</td>
<td>12</td>
</tr>
<tr>
<td>VED3001 Engineering Design &amp; Projects 3A</td>
<td>12</td>
</tr>
<tr>
<td>VED3002 Engineering Design &amp; Projects 3B</td>
<td>12</td>
</tr>
<tr>
<td>Elective (2 x 6 or 1 x 12 credit points)</td>
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</tr>
<tr>
<td>Elective (2 x 6 or 1 x 12 credit points)</td>
<td>12</td>
</tr>
<tr>
<td>*Stream Subjects: Stream subject A is a prerequisite for B.</td>
<td></td>
</tr>
<tr>
<td>Students to complete 6 stream subjects (in Sem5-8), selecting a minimum of two stream A and two stream B subjects.</td>
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Year 4

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<th>Credit Points</th>
<th>Semester Hours</th>
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<tr>
<td>Subjects total 2 x 48 Credit Points</td>
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<tr>
<td>VEG4001 Professional Engineering Practice 4A</td>
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<tr>
<td>VEG4002 Professional Engineering Practice 4B</td>
<td>12</td>
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<tr>
<td>*Stream Specialization Subjects A</td>
<td>12</td>
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<tr>
<td>*Stream Specialization Subjects B</td>
<td>12</td>
</tr>
<tr>
<td>VED4001 Engineering Design &amp; Projects 4A</td>
<td>12</td>
</tr>
<tr>
<td>VED4002 Engineering Design &amp; Projects 4B</td>
<td>12</td>
</tr>
<tr>
<td>Elective (2 x 6 or 1 x 12 credit points)</td>
<td>12</td>
</tr>
<tr>
<td>Elective (2 x 6 or 1 x 12 credit points)</td>
<td>12</td>
</tr>
<tr>
<td>*Stream Subjects: Stream subject A is a prerequisite for B.</td>
<td></td>
</tr>
<tr>
<td>Students to complete 6 stream subjects (in Sem5-8), selecting a minimum of two stream A and two stream B subjects.</td>
<td></td>
</tr>
<tr>
<td>Minimum number of Subjects for Specialisation award other than Electrical and Electronic Engineering Completion of:</td>
<td></td>
</tr>
<tr>
<td>Stream A &amp; Stream B Subject of the Specialisation;</td>
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<tr>
<td>18 Credit points of the Specialisation related Elective Subjects;</td>
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<tr>
<td>Final Project in the field of the Specialisation</td>
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<tr>
<td>Stream Specialization or Elective Subjects (12 Credit pts)</td>
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<tr>
<td>REP4100 Data Acquisition</td>
<td>12</td>
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<tr>
<td>REP4200 Directed Studies in Physics 2</td>
<td>12</td>
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<tr>
<td>REP4300 Einstein’s Theory of Relativity</td>
<td>6</td>
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<tr>
<td>VEA3000 Control Systems A</td>
<td>12</td>
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<tr>
<td>VEA4000 Computer Controlled Systems B</td>
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<tr>
<td>VAE1400 Computer Vision and Applications</td>
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<tr>
<td>VAE4200 Fuzzy Control and Applications</td>
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<tr>
<td>VAE4300 Optimal Control Systems</td>
<td>6</td>
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<tr>
<td>VAE4400 Robotics and Automation</td>
<td>6</td>
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<tr>
<td>VAE4500 Robust Control Systems</td>
<td>6</td>
</tr>
<tr>
<td>VAE4600 System Identification for Control</td>
<td>6</td>
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<tr>
<td>VEE3000 Electrical Machines and Energy Systems A</td>
<td>12</td>
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<tr>
<td>VEE4000 Power Electronics and Drives B</td>
<td>12</td>
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<tr>
<td>VEE4100 Electric Energy Systems Analysis and Operation</td>
<td>6</td>
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<tr>
<td>VEE4200 Electric Energy Systems Protection</td>
<td>6</td>
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<tr>
<td>VEE4300 Electric Energy Transmission and Distribution</td>
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<tr>
<td>VEE4400 High Voltage Engineering</td>
<td>6</td>
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<tr>
<td>RMA4001 Advanced Mathematics for Electrical Engineers</td>
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<tr>
<td>VEG4100 Digital Signal Processing A</td>
<td>6</td>
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<tr>
<td>VEH3000 Computer and Digital Design A</td>
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<tr>
<td>VEH4000 Computer and Digital Design B</td>
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<tr>
<td>VEH4300 Systems on a Programmable Device</td>
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<tr>
<td>VEM3000 EDA Tools and Design Methodology A</td>
<td>12</td>
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<tr>
<td>VEM4000 Integrated Circuit Design B</td>
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<td>VEM4100 Analog and Mixed Signal Design</td>
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<td>VEM4200 ASIC Design</td>
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<td>VEM4300 Embedded Systems Design</td>
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<td>VEM4400 High Level Synthesis – Verilog</td>
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<td>VEM4500 VLSI Design</td>
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<td>VEP3000 Photonics A</td>
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<td>VEP4000 Photonics B</td>
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<td>VES3000 Data Structures and Algorithms Analysis A</td>
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<td>VES4000 Programming Tools and Compilers B</td>
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<td>VES4100 Computer Systems</td>
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<td>VES4200 Network Software &amp; Management</td>
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<tr>
<td>VES4300 Software Engineering</td>
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<td>VET3000 Telecommunication A</td>
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<td>VET4000 Telecommunication B</td>
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<td>VET4100 Computer Communications 1</td>
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<td>VET4200 Computer Communications 2</td>
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<td>VET4300 Digital Communications</td>
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<td>VET4400 Digital Signal Processing in Telecommunications 2</td>
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<td>VET4500 Satellite Communications</td>
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<td>VET4600 Wireless Communications</td>
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<td>VET4700 Communication System and Network Design</td>
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<tr>
<td>VET4800 Multimedia and IP-Based Networks</td>
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<tr>
<td>Electives from outside School of Electrical Engineering [Subject to approval of Course Director]</td>
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<tr>
<td>Electives from outside School of Electrical Engineering [Subject to approval of Course Director]</td>
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</tbody>
</table>
BACHELOR OF ENGINEERING SCIENCE IN ELECTRICAL AND ELECTRONIC ENGINEERING

Course Code: EBES

COURSE OBJECTIVES

The Bachelor of Engineering Science in Electrical and Electronic Engineering is a flexible degree that allows students to specialise in a wide range of disciplinary areas such as Computer Engineering, Software Engineering, Microelectronic Systems, Telecommunications, Power Systems Engineering, Control Systems, Photonics, Robotics and Automation.

Course structure: First common year of electrical, electronic, computing, mathematics and physics studies designed to provide a foundation for students to select from a wide range of higher level subjects in later years of their course. Students will have the opportunity to complete a generic Electrical and Electronic Engineering Science course or specialize in any of the above titled streams. The course has a focus on practical applications and design and project work forms a significant component of the total program.

Student completing their studies at an appropriate standard and with appropriate subjects may be granted up to three years credit into the Bachelor of Engineering degree.

COURSE STRUCTURE

Only the first year of our new PBL based course is shown in the following course structure. The later years will be replaced as the PBL course is progressively introduced.

Engineering subject codes commence with ‘V’.
Science subject codes commence with ‘R’.

... A subjects = Semester1, ... B subjects = Semester 2

Year 1

<table>
<thead>
<tr>
<th>Subjects total 2 x 48 Credit Points</th>
<th>Credit Points</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>VEF1001 Enabling Sciences 1A</td>
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<tr>
<td>VEF1002 Enabling Sciences 1B</td>
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<td>60</td>
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<tr>
<td>VEF1003 Electrical Fundamentals 1A</td>
<td>12</td>
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</tr>
<tr>
<td>VEF1004 Electrical Fundamentals 1B</td>
<td>12</td>
<td>60</td>
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<tr>
<td>VEB1001 PBL &amp; Engineering Practice 1A</td>
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<tr>
<td>VEB1002 PBL &amp; Engineering Practice 1B</td>
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<td>120</td>
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Year 2

<table>
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<tr>
<th>Subjects total 2 x 48 Credit Points</th>
<th>Credit Points</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>VEH2001 Electronic Systems 2A</td>
<td>12</td>
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<tr>
<td>VEH2002 Electronic Systems 2B</td>
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<tr>
<td>VEC2001 Computer Engineering 2A</td>
<td>12</td>
<td>60</td>
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<tr>
<td>VAG1001 Engineering Profession 1A</td>
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<tr>
<td>VED2002 Engineering Design &amp; Professional Practice 2</td>
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<tr>
<td>Elective</td>
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<tr>
<td>Elective</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>Elective</td>
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<td>60</td>
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Year 3

<table>
<thead>
<tr>
<th>Stream Subject</th>
<th>Credit Points</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Stream Subject</td>
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<tr>
<td>Stream Subject</td>
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<td>60</td>
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<tr>
<td>Stream Subject</td>
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<td>60</td>
</tr>
<tr>
<td>VED3001 Engineering Design and Projects 3A</td>
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<tr>
<td>or VED3002 Engineering Design and Projects 3B</td>
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<td>60</td>
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<tr>
<td>VED3102 Engineering Design and Projects 3C</td>
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<td>60</td>
</tr>
<tr>
<td>VEG4001 Professional Engineering Practice 4A</td>
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<td>60</td>
</tr>
<tr>
<td>Electives (6 or 12 credit points)</td>
<td>24</td>
<td>120</td>
</tr>
</tbody>
</table>

Stream Subjects: Students to complete a minimum of three stream subjects.

BACHELOR OF ENGINEERING SCIENCE IN ELECTRICAL AND ELECTRONIC ENGINEERING

Students may choose any subject for which they are qualified from the Bachelor of Engineering.

Minimum number of Subjects for Specialisation award other than Electrical and Electronic Engineering

Completion of:
- Stream A & Stream B Subject of the Specialisation;
- 24 Credit points of the Specialisation related Elective Subjects.

*Students entering the degree without the equivalent of pass in Mathematical Methods at VCE level will be advised to undertake foundation or transition mathematics as a preparation.

BACHELOR OF SCIENCE (HONOURS) IN COMPUTER TECHNOLOGY

Course Code: EHEC

COURSE OBJECTIVES

The course is designed to enhance the skills acquired in the Computer Technology Degree course, by developing the research potential of the students and allowing in-depth study topics in a range of computer technology subjects.

The Honours Degree provides for a research project and a selection of advanced elective subjects. This year may lead to further postgraduate opportunities. The choice of subjects is dependent upon the student’s background and intended area of further study.

ADMISSION REQUIREMENTS AND PREREQUISITES

To qualify for admission the student must have completed an appropriate undergraduate course of at least three years in duration, and obtained results of 60 per cent and higher in the majority of subjects undertaken.

COURSE DURATION

The course is offered on a full-time basis over one year, or part-time equivalent.

COURSE STRUCTURE

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Credit Points</th>
</tr>
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<tbody>
<tr>
<td>VEC4701 Research Project</td>
<td>24</td>
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<tr>
<td>VEC4702 Research Project</td>
<td>24</td>
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</tbody>
</table>

Elective subjects (24 credit points per semester)

Elective subjects are to be chosen from the range of final year undergraduate subjects (no more than two at third year level) and postgraduate subjects, as approved by the Course Co-ordinator.

BACHELOR OF SCIENCE (HONOURS) – PHYSICS

Course Code: SHPC

COURSE OBJECTIVES

The course aims to broaden and deepen the student’s knowledge and understanding of physics by the completion of advanced courses and to provide a basic training in the skills necessary to undertake research in physics. Research training will include the ability to devise, design and carry out research intended to yield data relevant to the solution of specific problems, the ability to develop and refine working hypotheses, to critically analyse data and to report results in an appropriate manner.
The research project is normally undertaken in one of the following areas of expertise of the section: optical fibre sensors, laser physics, optoelectronic imaging, applied optics and vacuum technology.

ADMISSION REQUIREMENTS
To qualify for entry to the Honours program the applicant should have completed the requirements for a pass degree with major studies in an appropriate discipline. Entry is at the discretion of the Applied Physics section and applicants should normally have obtained a 'credit' average in the final year of the pass degree. For mature age applicants, an appropriate combination of qualifications and experience will be considered.

COURSE DURATION
The course will be offered on a full-time basis over one year or part-time equivalent.

COURSE STRUCTURE
RPH4411 Physics 4 (Honours) 96 credit points
(48 per semester)

ACADEMIC PROGRESSION
A student will not be allowed to repeat the Honours year or any component of it without the permission of the Course Co-ordinator.
SCHOOL OF HEALTH SCIENCES

The School of Health Sciences aims both to enhance post-secondary educational opportunities and to expand vocational opportunity, particularly for those who live and work in the western metropolitan region. This will be achieved by progressively offering a range of courses designed to facilitate the access of students across a range of educational levels to educational programs which are professionally and educationally oriented. Three major disciplines are represented in the School of Health Sciences: Osteopathic Medicine, Paramedic Sciences, and Chinese Medicine.

Curriculum and teaching approaches adopted by the School include encouraging students to define their learning needs and to take responsibility for their learning. The School also aims to foster students’ personal, professional and educational growth and development.

Courses are developed in consultation with staff within the University, with members of the professions, accrediting authorities and members of the community to ensure the relevance and quality of courses.

COURSE OFFERINGS

In 2006, the School of Health Sciences will offer the following undergraduate courses:

Bachelor Chinese Medicine (Acupuncture & Herbs)

Bachelor of Health Science

- Clinical Dermal Therapies
- Paramedic (3yr pre-service)
- Paramedic (1yr conversion)
- Chinese Medicine
- Naturopathy & Homoeopathy

Bachelor of Science

- Clinical Sciences (Osteopathy)

Course Code: HBAH

COURSE OBJECTIVES

The aims of the course are to:

- provide students with quality clinical experiences in hospitals and complementary health clinics from Year One of the program;
- provide students with the option of undertaking a clinical internship placement in an appropriate hospital setting in China or other countries; and
- provide students with opportunities for research and higher degree in Chinese Medicine on the completion of their undergraduate degree.

ADMISSION REQUIREMENTS

To qualify for admission to the course applicants must have satisfactorily completed the Victorian Certificate of Education (VCE), or equivalent with a study score of at least 20 in Units 3 and 4 English. It is also desirable, but not essential, that applicants have completed VCE level studies in biology, chemistry, psychology, or Asian studies.

Applicants who do not meet the normal admission requirements but who possess appropriate educational qualifications, or work experience which would enable them to successfully undertake the course, will be considered for admission.

COURSE DURATION

The course is offered on a full-time basis over four years or part-time equivalent.

COURSE LOCATION

This course is offered at the St Albans campus.

CLINICAL PLACEMENT

Students will be required to undergo a Victorian Police Check before commencing placement subjects. Police checks need to be conducted annually throughout the program. Prospective and continuing students should be aware that not passing relevant police checks may restrict access to clinical placements necessary for graduation. Students will be required to show evidence of a current first aid in the workplace level 2 qualification whilst enrolled in the clinical practice unit.

Teaching clinics operate 50 weeks per year, and students will be required to attend clinical sessions on a rotation basis including outside of semester hours to maintain a public service and provide continuity of patient care.

COURSE STRUCTURE

All students will study both Acupuncture and Chinese Herbal Medicine throughout the four years of this integrated program.

Year One

Semester One

HHT1000 Introduction to Major Classics – Nei Jing 6 3
HHT1001 Introduction to Chinese Medical Literacy 8 3
HHT1002 Fundamentals of Chinese Medicine 12 11
HHT1100 Introduction to Health Enhancement (Yang Sheng) 6 2
HHT1101 Acupuncture Point Location 1 8 5
RBM1515 Anatomy & Physiology 8 6
Semester Two

HHT1005 Chinese Medical Diagnosis & Pathogenesis 1 8 6
HHT1007 Chinese Pharmacopoeia 6 7

BACHELOR OF CHINESE MEDICINE

(ACUPUNCTURE AND HERBS)

Double Major

[For students commencing 2005 onwards]

Course Code: HBAH

COURSE OBJECTIVES

The aims of the course are to:

- provide students with detailed training in Chinese medical theory and practice, including acupuncture and Chinese herbal medicine;
- provide students with comprehensive Chinese medical skills in both acupuncture and Chinese herbal medicine, incorporating adjunctive approaches such as meditation, health enhancement and CM dietary modalities;
- ensure that students practise from Chinese medical theory, whilst integrating western medical information as appropriate, to ensure that graduates are safe and competent in the practice of Chinese Medicine;
FACULTY OF HEALTH, ENGINEERING AND SCIENCE

HHT1009 Introduction to Chinese Medicine
Clinical Practice 12 48*
HHT1201 Acupuncture Point Location 2 8 5
RBM1525 Anatomy and Physiology 8 6
RBM1910 Microbiology for Chinese Medicine Practitioners 6 3

Year Two
Semester One
HHT2003 Chinese Medical Diagnosis and Pathogenesis 2 8 6
HHT2009 Pharmacopeia and Dispensing 8 6
HHT2100 Formulae and Strategies 1 6 6
HHT2104 Acupuncture Needling: Theory and Practice 1 6 4
RBM2911 Pathophysiology 1 8 6

Semester Two
HHT2000 Health Enhancement (Yang Sheng) 6 3
HHT2200 Formulae and Strategies 2 6 6
HHT2202 Acupuncture Theory: Systems and Methods 6 3
HHT2203 Chinese Medicine Clinical Practice 2 16 72*
HHT2205 Acupuncture Needling: Theory and Practice 2 6 4
RBM2912 Pathophysiology 2 8 6

Year Three
Semester One
HHT3100 Chinese Medical Micro-Systems 6 3
HHT3103 Chinese Medicine Clinical Practice 3 6 72
HHT3104 Major Classics – Shang Han Lun & Wen Bing 1 8 5
HHT3106 Internal Medicine 1 6 6
HHT3108 Chinese Medicine Therapeutic Applications 1 6 5
RBM3921 Western Medical Diagnoses and Interventions 1 6 6

Semester Two
HHT3003 Counselling Skills 8 4
HHT3105 Major Classics – Shang Han Lun & Wen Bing 2 6 5
HHT3203 Chinese Medicine Clinical Practice 4 16 108*
HHT3207 Internal Medicine 2 6 6
HHT3111 Chinese Medicine Therapeutic Applications 2 6 5
RBM3922 Western Medical Diagnoses and Interventions 2 6 6

Year Four
Semester One
HHT4002 Research Methods for Chinese Medicine 6 3
HHT4108 Chinese Medicine Traumatology 6 4
HHT4100 Case Conferencing & Clinical Issues 1 6 4
HHT4101 Chinese Medicine Obstetrics & Gynaecology 6 6
HHT4103 Chinese Medicine Clinical Internship 1 16 156*
RBM4923 Western Medical Diagnoses and Interventions 3 8 6

Semester Two
HHT4004 Professional Issues for Chinese Medicine Practice 6 4
HHT4200 Case Conferencing and Clinical Issues 2 6 6
HHT4201 Chinese Medicine Paediatrics 6 5
HHT4203 Chinese Medicine Dermatology 6 5
HHT4204 Chinese Medicine Clinical Internship 2 16 264*
RBM4924 Western Medical Diagnosis and Interventions 4 8 6

Totals 384 3276

GRADUATION REQUIREMENTS
In order to be awarded a Bachelor of Chinese Medicine (Acupuncture and Herbs) degree, students must pass all components of assessment and satisfactorily complete all theoretical and clinical hurdle requirements to proficiency standards as specified in Ferrigno, P. (Compiler). (2005). School of Health Sciences Chinese Medicine Clinical Logbook [CD and manual]. Melbourne: Victoria University of Technology, School of Health Sciences, CM Unit; and Mathieson, L. (Producer). (2005). School of Health Sciences Chinese Medicine Clinical Practice demo CD [CD]. Melbourne: Victoria University of Technology, School of Health Sciences, CM Unit. Students should presume that the content in those references constitutes Required Reading throughout the entire Chinese Medicine degree.

PROFESSIONAL RECOGNITION
It is expected that graduates will meet the requirements of the Chinese Medicine Registration Board of Victoria and be eligible for membership of the major professional associations.

BACHELOR OF HEALTH SCIENCE – CLINICAL DERMAL THERAPIES
Course Code: HBCD
(This course is currently under review.)

COURSE OBJECTIVES
The aims of the course are to:
• provide an opportunity for qualified Beauty Therapists to establish and develop knowledge and skills in advanced dermal therapy treatments;
• instruct appropriately qualified practitioners in safe and effective therapies to supplement their existing dermal therapies practice and enhance the health of the client;
• extend and expand interpersonal skills in relation to the demands of practice;
• examine current developments in dermal therapy, advanced dermal therapy techniques and the application of these in practice;
• develop research perspectives within the context of Clinical Dermal Therapy and Clinical Dermal Therapy practice;
• provide a pathway to Degree level for Diploma of Beauty Therapy students;
• enhance career options for those Beauty Therapists working in the field;
• establish an educational benchmark for the practice of Clinical Dermal Therapies.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must have completed the Diploma of Beauty Therapy, or equivalent, and have a minimum of one years’ work experience in the field. Applicants may be required to attend an interview. International students are eligible to apply for entry to the course. Students will be required to undergo a Victoria Police check before commencing placement subjects. Police checks need to be conducted annually throughout the program. Prospective and continuing students should be aware that not passing relevant police checks may restrict access to clinical placements necessary for graduation.

Students will be required to undergo a Victoria Police check before commencing placement subjects. Police checks need to be conducted annually throughout the program. Prospective and continuing students should be aware that not passing relevant police checks may restrict access to clinical placements necessary for graduation.
COURSE DURATION
The course is offered over three semesters full-time or part-time equivalent.

COURSE STRUCTURE
Classes are conducted over three semesters each year, one day a week.

Year One
Semester One
APU3001 Psychological Issues 16 3
HHD3000 Health Science 1 16 6
HHD3110 Dermal Techniques 1 16 3
Semester Two
HHD3002 Health Science 2 12 3
HHD3100 Clinical Practice 1 12 4
HHD3102 Research Perspectives & Practice 12 2
HHD3220 Dermal Techniques 2 12 3
Semester Three
HHD3103 Nutrition for Health and Well-Being 12 2
HHD3104 Graduating Seminar 12 3
HHD3200 Clinical Practice 2 12 4
HHD3330 Dermal Techniques 3 12 3
Total 144 432

CLINICAL TRAINING
Teaching clinics operate 50 weeks per year, and students will be required to attend clinical sessions on a rotation basis including outside of semester hours to maintain a public service and provide continuity of patient care.

WEBSITE
www.staff.vu.edu.au/cdt

GRADUATION REQUIREMENTS
In order to be awarded a Bachelor of Science – Clinical Dermal Therapies degree, students must pass all components of assessment where indicated and satisfactorily complete all theoretical and clinical hurdle requirements to proficiency standards as specified by local industry and government requirements.

CAREER OPPORTUNITIES
Students will obtain knowledge and skills to equip them for professional careers in the growing field of Clinical Dermal Therapy. Graduates find career paths that allow them to perform advanced treatments such as laser on their clients and to work together with medical, paramedical and allied health professionals to enhance aesthetic outcomes in exciting areas like dermal plastic surgery and reconstructive surgery.

PROFESSIONAL RECOGNITION
All graduates should be eligible for membership with the Australian Society of Dermal Clinicians.

BACHELOR OF HEALTH SCIENCE – NATURAL MEDICINE (CONVERSION)
Course Code: HBWN (internet)/HBNL (local)
[These courses are currently under review.]

COURSE OBJECTIVES
The aims of the course are to:
- augment skills and knowledge of health practice in relation to critical reflection and research;
- provide an education which further develops the individual’s personal, professional and intellectual growth;
- enable graduates to broaden their understanding of the physical, socio-economic and psychological factors impacting upon health; and
- enable graduates to articulate into higher degree pathways.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must have a Diploma or Advanced Diploma in natural medicine, complementary therapies; or equivalent in a related area. In addition to this, applicants would normally be expected to be practising in the field of natural medicine, complementary therapies or an equivalent related field.

COURSE DURATION
The course is offered on a one-year full-time basis or part-time equivalent.

COURSE STRUCTURE

Year One
Semester One
HHN0011 Philosophical Concepts in Natural Medicine 12 3
HHN0012 Ethical and Legal Issues 12 6
HHN0013 Research Skills 12 6
HHN0014 Developing Pharmacological Understanding in Natural Medicine Practice 12 8
Semester Two
HHN0021 Counselling Skills for Natural Medicine Practitioners 12 3
HHN0022 Professional Writing in Natural Medicine 12 9
HHN0023 Research Project 14 11
Total 96 552

ARTICULATION PATHWAYS AND CREDIT
Students who successfully complete the course will be eligible to apply for credit towards the Graduate Diploma in Western Herbal Medicine and Graduate Diploma in Complementary Medicine. In turn, completion of either of the Graduate Diplomas provides eligibility for entry to the Master of Health Science by Coursework.
BACHELOR OF HEALTH SCIENCE
NATUROPATHY & HOMOEOPATHY

Course Code: HBNH
(This course is currently under review.)

COURSE OBJECTIVES

• demonstrate the principles and practice of bodywork, naturopathy and homoeopathy;
• develop skills to an advanced level for the promotion of health and wellbeing within the Community;
• perform clinical skills to an advanced level with the use of naturopathy and homoeopathy;
• apply and demonstrate safe practices in the prescribing and the preparation of naturopathic herbal preparations;
• apply and demonstrate safe practices in the prescribing and preparation of homoeopathic preparations;
• demonstrate skills for the clinical assessment of patients and demonstrate an ability to prescribe the most appropriate form of treatment;
• recognise and refer patients to medical facilities where appropriate;
• communicate effectively within practice;
• work both autonomously and collaboratively as a professional; and
• accurately assess the health of patients after completing a thorough naturopathic or homoeopathic consultation.

COURSE STRUCTURE
The course is full-fee paying and comprises:

• two years in TAFE – Advanced Diploma in Naturopathy;
• integration semester – a combined summer program;
• two years Higher Education – degree conversion.

SUMMER SCHOOL

<table>
<thead>
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<th>Credit Points</th>
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<td>University Skills for Natural Medicine Students</td>
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<td>HHH2302</td>
<td>Iridology 1</td>
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<td>HHH2303</td>
<td>Bodywork Therapies 1</td>
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<tr>
<td>HHH2304</td>
<td>Aromatherapy</td>
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Total 48 277

Year 3

Semester One

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<td>HHH3101</td>
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<td>Homoeopathy 1</td>
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<td>HHH3103</td>
<td>Phytotherapeutic Materia Medica 1</td>
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<tr>
<td>HHH3104</td>
<td>Naturopathic and Homoeopathic Clinicals</td>
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Semester Two

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<td>Nutriceuticals</td>
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<td>HHH3202</td>
<td>Counselling Skills for Natural Medicine Practitioners</td>
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<td>HHH3203</td>
<td>Developing Pharmacological Understanding in Natural Medicine Practice</td>
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<td>48</td>
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<tr>
<td>HHH3204</td>
<td>Vibrational Medicine</td>
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<td>HHH3205</td>
<td>Naturopathic and Homoeopathic Clinical Internship</td>
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Year 4

Semester One

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<td>Research Methods</td>
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<td>Ethical and Legal Issues</td>
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Semester Two

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<tr>
<td>HHH4201</td>
<td>Advanced Diagnosis &amp; Symptomology for Natural Medicine Practice</td>
<td>12</td>
<td>48</td>
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<tr>
<td>HHH4202</td>
<td>Professional Issues</td>
<td>8</td>
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<td>HHH4203</td>
<td>Current Research Trends in Natural Medicine</td>
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<td>HHH4204</td>
<td>Naturopathic and Homoeopathic Clinical Internship 3</td>
<td>12</td>
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</table>

Total 288 1032

ADMISSION REQUIREMENTS
To qualify for entry into the course students must have completed the Advanced diploma in Naturopathy or equivalent conducted by TAFE. Applicants must also have successfully completed the Victoria Certificate of Education (not more than two attempts) or the equivalent, with a pass or better in English and either Chemistry or Biology.

Mature age applicants will need to complete a supplementary information form, giving references to the applicant’s life and work experience, motivation and past education record.

Students will be required to undergo a Victorian Police check before commencing placement subjects. Police checks need to be conducted annually throughout the program. Prospective and continuing students should be aware that not passing relevant police checks may restrict access to clinical placements necessary for graduation.

COURSE DURATION
The course is offered full time over nine semesters with an integrated summer semester or part-time equivalent.

CLINICAL TRAINING
Teaching clinics operate 50 weeks per year, and students will be required to attend clinical sessions on a rotation basis including outside of semester hours to maintain a public service and provide continuity of patient care.

GRADUATION REQUIREMENTS
In order to be awarded a Bachelor of Science – Naturopathy & Homoeopathy degree, students must pass all components of assessment where indicated and satisfactorily complete all theoretical and clinical hurdle requirements to proficiency standards as specified in Williams, V. (Ed.). (2005). Clinical Policies and Procedures Manual. Melbourne: Victoria University, School of Health Science, CIMU. Students should presume that the contents in this reference constitute Required Reading throughout the entire Naturopathy & Homoeopathy degree.
BACHELOR OF HEALTH SCIENCE –
PARAMEDIC (THREE-YEAR PRE-SERVICE)

Course Code: HXPA
(This course is currently under review.)

COURSE OBJECTIVES
The aims of this course are to produce graduates who can:

- identify, evaluate and manage the physical, psychological and social needs of patients and members of the community undergoing paramedic assessment, treatment and transport, and apply problem solving skills when planning and implementing out-of-hospital care;
- perform paramedic skills and techniques within paramedic protocols and apply paramedic knowledge necessary for safe, efficient and effective practice within paramedic environments;
- interpret the paramedic needs of patients and members of the community within a holistic framework and apply an integrated holistic approach in paramedic practice;
- perform effectively and safely as an independent person and as a member of a health care team in paramedic environments;
- be sensitive to contemporary issues within socially and culturally diverse communities and predict and respond effectively to such issues when providing paramedic practice;
- examine current research and developments in paramedic practice and evaluate their implications for paramedics and the profession.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must normally have successfully completed the Victoria Certificate of Education (VCE), with Units 3 and 4 and a study score of at least 20 in English, or equivalent. Preference will be given to applicants who have successfully completed biology, physics or mathematics.

Applicants who do not meet the normal admission requirements but who possess appropriate educational qualifications, work or life experiences which would enable them to successfully undertake the course, will be considered for admission.

Students enrolled in the Bachelor of Health Science degree will be required to produce a current Victorian drivers’ licence, and undergo a Victorian Police Check, a medical check and a physical capacity test before commencing placement subjects. Police checks need to be conducted annually throughout the program. Prospective and continuing students should be aware that not passing relevant police checks may restrict access to clinical placements necessary for graduation.

COURSE DURATION
The course is offered on a full-time basis or part-time equivalent for Years One and Two only, and part-time only for Year Three. Clinical placements will be facilitated to suit individual needs of international students.

COURSE STRUCTURE

<table>
<thead>
<tr>
<th>Year One</th>
<th>Credit Hours</th>
<th>Contact Hours per Week</th>
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<tbody>
<tr>
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<tr>
<td>HFB1101 Fundamentals of Paramedicine 1</td>
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<td>HFB1102 Paramedic Sciences 1</td>
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<td>HFB1801 Out of Hospital Practice</td>
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<td>HFB1802 Prehospital Clinical</td>
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<td>Semester Two</td>
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<td>HFB1203 Paramedic Practice 1</td>
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<td>HFB1205 Fundamentals of Paramedicine 2</td>
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<td>HFB1206 Paramedic Sciences 2</td>
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<td>HFB2102 Fundamentals of Paramedicine 3</td>
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<td>HFB2204 Paramedic Practice 3</td>
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<td>HFB2206 Fundamentals of Paramedicine 4</td>
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<td>HFB2207 Paramedic Sciences 4</td>
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<td><strong>Total Year Two</strong></td>
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<th>Year Three</th>
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<td>HFB3111 Professional Basis of Paramedic Practice 1</td>
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<td>HFB3301 Issues in Prehospital Health Service Delivery</td>
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<td>HFB3122 Professional Basis of Paramedic Practice 2</td>
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<td><strong>Course Total</strong></td>
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GENERAL ELECTIVES
Students may choose electives from any other higher education courses offered by the University, subjects to the approval of the Course Co-ordinator, Elective contact hours may be greater than three contact hours.

COURSE REGULATIONS
The following should be read in conjunction with the Faculty Regulations detailed earlier in this handbook, and the University Statutes and Regulations.

UNSATISFACTORY PROGRESS
Students may be asked to show cause why they should not be excluded from the course if they fail to complete the course within seven calendar years on a full-time basis or part-time equivalent.

GRADUATE REQUIREMENTS
In order to be awarded the degree Bachelor of Health Science-Paramedic, students must attain proficiency standard as stipulated by local industry guidelines in all paramedic practical assessments and must obtain an Upgraded Pass in all practical subjects. In order to be enrolled in Year Three, students must have successfully completed Years One and Two, or equivalent.

CAREER OPPORTUNITIES
Students will obtain skills, knowledge and personal attributes necessary for employment in an ambulance service. The skills, knowledge and attributes should also provide graduates with a competitive advantage for selection and promotion in the paramedicine career pathways.

PROFESSIONAL RECOGNITION
All graduates are eligible to apply for membership of the Australian college of Ambulance Professionals.
BACHELOR OF HEALTH SCIENCE – PARAMEDIC (ONE-YEAR CONVERSION)
Course Code: HBPA
(This course is currently under review.)

COURSE OBJECTIVES
The aims of the course are to:
- provide a route to a degree qualification in paramedic practice for qualified paramedics who currently hold an Associate Diploma or equivalent;
- enhance the knowledge and skills of paramedics enabling them to function more effectively in their current practice;
- provide opportunities for paramedic practitioners to explore practice behaviours and attitudes in light of contemporary multicultural and multidisciplinary environments;
- stimulate paramedic practitioners to use problem solving skills when planning and implementing prehospital emergency care;
- produce graduate paramedics who can apply a research approach relevant to present practice;
- produce graduates who can examine current developments in paramedic practice and their implications for paramedics and paramedicine.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must:
- have an Associate Diploma of Health Science (Ambulance Officer), Diploma of Health Science (Paramedic), or equivalent; or
- be eligible for registration as a paramedic by the relevant body within the applicant’s state or country of residence; and
- have a minimum of one-year post-qualification experience.

COURSE DURATION
The course is offered over one year on a full-time basis or part-time equivalent, as demand requires.

The course is offered on a full-time basis or part-time equivalent and is conducted completely via distance education using online teaching methodologies.

COURSE STRUCTURE

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<th>Points</th>
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GENERAL ELECTIVES
Student may choose an elective from any other higher education course offered by the University, subject to the approval of the Course Co-ordinator. Elective contact hours may be greater than three contact hours.

COURSE REGULATIONS
The following should be read in conjunction with the Faculty Regulations detailed earlier in this Handbook, and the University Statutes and Regulations.

UNSATISFACTORY PROGRESS
Students may be asked to show cause why they should not be excluded from the course if they fail to complete the course within three calendar years full-time or six years part-time.

BACHELOR OF HEALTH SCIENCE – CHINESE MEDICINE
Course Code: HBAT Acupuncture Stream
HBHE Chinese Herbal Medicine Stream
(Continuing students only. Courses not available after 2006.)

COURSE STRUCTURE

<table>
<thead>
<tr>
<th>Year Four</th>
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<tbody>
<tr>
<td>Semester One</td>
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<tr>
<td>HHT4100</td>
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<tr>
<td>Acupuncture Stream</td>
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<td>HKK4010</td>
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<td>104*</td>
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<td>Chinese Herbal Medicine Stream</td>
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<tr>
<td>– Chinese Herbal Medicine</td>
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</table>

| Semester Two          |        |                |
| HHT4200               | 6      | 6              |
| HHT4004               | 6      | 4              |
| HHT4005               | 6      | 40*            |
| Acupuncture Stream    |        |                |
| HKK4004               | 6      | 20*            |
| HKK4020               | 24     | 208*           |
| Chinese Herbal Medicine Stream |
| HHI4005               | 8      | 30*            |
| HHI4020               | 30     | 208*           |
| Total:                | 48     | 388            |
| – Acupuncture         | 48     | 358            |
| – Chinese Herbal Medicine |    |                |

Total Year Four:
- Acupuncture 96 684
- Chinese Herbal Medicine 96 702
CLINICAL TRAINING
Teaching clinics usually operate 50 weeks per year, and students will be required to attend clinical sessions outside of semester hours to maintain a public service and provide continuity of patient care.

GRADUATION REQUIREMENTS

BACHELOR OF HEALTH SCIENCE
(CHINESE MEDICINE & CLINICAL SCIENCES)
(Double Major)
Course Code: HBDH Chinese Herb specific (Year5)  (Continuing students only)

<table>
<thead>
<tr>
<th>Year Five</th>
<th>Credit Points</th>
<th>Hours per week</th>
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<tr>
<td>Semester One</td>
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<tr>
<td>HHT1000 Introduction to Major Classics – Nei Jing</td>
<td>6</td>
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<tr>
<td>HHT4100 Case Conferencing &amp; Clinical Issues</td>
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<td>HHT4002 Research Methods for Chinese Medicine</td>
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<td>HHT4108 Chinese Medicine Traumatology</td>
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<td>4</td>
</tr>
<tr>
<td>HKK4002 Chinese Medical Specialties: Acupuncture</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>HKK4010 Chinese Medicine Clinical Internship 1 – Acupuncture Major</td>
<td>16</td>
<td>104*</td>
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<tr>
<td>Total</td>
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<td>308</td>
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</tbody>
</table>

| Semester Two                  |               |                |
| HHT4200 Case Conferencing & Clinical Issues | 6 | 6 |
| HHT4004 Professional Issues for Chinese Medical Practice | 6 | 4 |
| HHT4005 Chinese Medicine Acute Interventions | 6 | 40* |
| HKK4004 Schools of Thought in Acupuncture | 6 | 20* |
| HKK4020 Chinese Medicine Clinical Internship 2 – Acupuncture Major | 24 | 208* |
| Total                          | 48            | 388            |

PROFESSIONAL RECOGNITION
It is expected that graduates will meet the requirements of the Chinese Medicine Registration Board of Victoria and be eligible for membership of the major professional associations.

BACHELOR OF HEALTH SCIENCE – CHINESE MEDICINE WITH HONOURS
To graduate with honours a student must:
(a) maintain grades of distinction ‘D’ or above in all graded subjects throughout 2nd, 3rd and 4th year of the program; and
(b) have satisfactory reports from all clinical teachers and supervisors throughout the four years of the program.

ARTICULATION PATHWAYS
Successful completion of the Bachelor of Health Science – Chinese Medicine allows direct articulation to various Graduate Diplomas and the Master of Health Science. Further articulation is then possible to the Doctor of Philosophy in Chinese Medicine.

BACHELOR OF SCIENCE – CLINICAL SCIENCES
Course Code: HBOS
(Subject to approval by the Osteopaths Registration Board)

COURSE OBJECTIVES
The aims of the course are to:
- prepare graduates for entry into the Master of Health Science – Osteopathy. Upon completion of the Masters degree, a graduate will be eligible to apply for registration as an osteopath;
- provide an education which contributes to the individual’s personal, professional and intellectual growth;
- provide an education which contributes to the preparation of competent primary health care practitioners who, upon graduation from the Masters degree, are able to: apply osteopathic principles to formulate and prescribe suitable and safe management of patients; assess the health status of the patient, including physical, socio-economic and psychological factors; communicate with the patient and interact with other health care providers and advisers for the benefit of the patient.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must have completed the Victorian Certificate of Education (after not more than two attempts), or equivalent, Units 3 and 4 in Chemistry and one of Physics or Mathematics (any), with a study score of at least 20 in English. Applicants over the age of 21 who have not attempted an approved year 12 course in the three years prior to application may apply to enter the course but are still required to meet the prerequisite study hurdles.

Students will be required to undergo a Victoria Police check before commencing placement subjects. Police checks need to be conducted annually throughout the program. Prospective and continuing students should be aware that not passing relevant police checks may restrict access to clinical placements necessary for graduation.
COURSE STRUCTURE

Year One
Semester One
HHA1171 Anatomy 1
HHO1171 Osteopathic Science 1
HPF1171 Physiology 1
HHU1171 Clinical Practicum 1
RMS1171 Biochemistry 1 (Osteopathy)
RBF1170 Cell Structure and Function
Semester Two
HHA1272 Anatomy 2
HHD1271 Clinical Diagnosis & Management 1
HHO1272 Osteopathic Science 2
HHY1271 Pathology 1
RMS1272 Biochemistry 2 (Osteopathy)
Total Year One 96 598

Year Two
Semester One
HHA2173 Anatomy 3
HHC2171 Biomechanics 1
HHD2172 Clinical Diagnosis & Management 2
HHO2173 Osteopathic Science 3
HHP2172 Physiology 2
HHU2173 Clinical Practicum 3
HHY2172 Pathology 2
Semester Two
HHA2274 Anatomy 4
HHC2272 Biomechanics 2
HHD2273 Clinical Diagnosis & Management 3
HHO2274 Osteopathic Science 4
HHP2273 Physiology 3
HHU2274 Clinical Practicum 4
HHY2273 Pathology 3
Total Year Two 96 687

Year Three (old structure: continuing students)
Semester One
HHC3173 Biomechanics 3
HHD3174 Clinical Diagnosis & Management 4
HHO3175 Osteopathic Science 5
HPF3174 Physiology 4
HHS3171 Psychology & Social Sciences 1
HHU3175 Clinical Practicum 5
HHY3174 Pathology 4
Semester Two
HHA3275 Anatomy 5
HHC3274 Biomechanics 4
HHD3270 Professional Ethics
HHO3276 Osteopathic Science 6
HHP3275 Physiology 5
HHS3272 Psychology & Social Sciences 2
HHU3276 Clinical Practicum 6
Total Year Three 96 838
Total Course 288 2,123

*Total Semester Hours for Unit
Check subject details with course co-ordinator.

CLINICAL TRAINING
For registration as an Osteopath, students must have completed the minimum clinical subject attendance requirements over the combined Bachelor of Science – Clinical Sciences and Master of Health Science – Osteopathy courses. Completion of the Bachelor of Science – Clinical Sciences course alone does not make graduates eligible for registration as Osteopaths.
Teaching clinics operate 50 weeks per year, and students will be required to attend clinical sessions on a rotation basis including outside of semester hours to maintain a public service and provide continuity of patient care.

SCHOOL WEBSITE
www.omc.org.au

PROFESSIONAL RECOGNITION
All graduates will be eligible for registration with the Osteopaths Registration Board of Victoria, and for registration as an osteopath in all other Australian states by mutual recognition with the Osteopaths Registration Board. Registered Osteopaths are also eligible for membership with other professional associations.
SCHOOL OF MOLECULAR SCIENCES

The School of Molecular Sciences operates at the Werribee Campus of the University. In line with Faculty objectives, the School is committed to the development and promotion of science and technology.

The School seeks to provide students with vocationally and educationally oriented experiences and expertise which will best equip them for entry into a work environment in which there is likely to be significant career changes during their working life. Consequently, the School provides courses and programs with a close relationship between theory and practice, and seeks to include relevant industrial experience within each award course.

The School also seeks to foster within its students a personal pride in, and a professional attitude to their work and a full understanding of their responsibilities to society as trained scientists and technologists.

It is the belief of the School that active involvement in research and consultancy is vital in providing quality teaching as well as in developing a viable and practical course for the students. To this end, all of the academic staff have a doctoral degree and substantial research and consultancy experience. The School endeavours to develop close relationships with industry and with the community to keep abreast of their respective needs. To this end student projects are performed in collaboration with industry, the community, government bodies, and research institutes wherever possible.

The School is equipped with world class laboratories and equipment for teaching and research as well as for industrial training programs. These include high performance liquid chromatographs, gas chromatograph-mass spectrometers, atomic absorption spectrophotometers, FTIR spectrometers, NMR, UV-Vis spectrophotometers, an Instron texture analyser, Infratech and NIR Systems food and feed analysers as well as excellent facilities for microbiological and genetic engineering work. Specialist facilities also include a fully-equipped, pilot-scale food processing hall.

The School also offers Master of Science and Doctor of Philosophy degrees by research and Masters and Graduate Diploma coursework programs. Further details are given in the Postgraduate Studies section of the Handbook.

COURSES OFFERED

The School of Molecular Sciences offers undergraduate courses leading to the award of:

- Bachelor of Applied Science;
  - Chemistry;

- Bachelor of Science;
  - Biotechnology;
  - Medical, Forensic and Analytical Chemistry;
  - Nutrition, Food and Health Science;

- Bachelor of Science (Honours).

SCHOOL REGULATIONS

The following regulations apply to all courses and subjects administered or taught by the School of Molecular Sciences and are in addition to University regulations governing these areas as laid down in the Statutes and Regulations.

AWARDS

A student shall qualify to receive an award when that student has successfully completed all the requirements and prescribed subjects of the course.

ASSESSMENT

Student assessment will embrace both formal assessment through final examination and continuous assessment incorporating unit tests, assignments, report writing, problem solving exercises, class presentations and laboratory, project and fieldwork.

Students would normally be expected to satisfactorily complete each component of the assessment to gain a pass in the subject.

PRACTICAL WORK

A minimum of 80 per cent attendance is required at all practical sessions. Failure to attend at least 80 per cent of practical sessions will automatically constitute unsatisfactory completion of the subject. Practical reports will only be accepted from those students who have attended practical sessions for their full duration.

LATE SUBMISSION

Students failing to submit assessable work by the prescribed deadline will incur a penalty of five percentage marks per day for the first ten days after the prescribed deadline. Work submitted after this time will not be assessed and students will be granted a zero grade.

This requirement may be varied at the discretion of the subject co-ordinator.

SUPPLEMENTARY ASSESSMENT

Students may be granted supplementary assessment with a maximum of two supplementary assessments being permitted in any one full-time academic year. Supplementary assessment will not be available for subjects that are being repeated.

USE OF ELECTRONIC CALCULATORS AND STORAGE DEVICES

The use of electronic calculators and electronic storage devices is not permitted in any examination unless specified in the subject guide for that subject and/or on the examination paper for that subject.

UNSATISFACTORY PROGRESS

Students in any one of the following categories may be asked to show cause as to why they should not be excluded from the course:

- those who fail 50 per cent or more of their assessable enrolment load (expressed in subjects) in any semester;
- those who fail the same subject twice;
- those who transgress a conditional enrolment agreement.

DURATION OF EXCLUSION

Excluded students have no automatic right of re-admission to the course from which they were excluded. Students who have been excluded may apply for re-admission not less than one calendar year from the date of exclusion. These students must provide, with their application, evidence of changed circumstances which significantly improve the applicant’s chances of academic success.

PROGRESSION

Progression through the course is based on the following guidelines:

- Where any compulsory subject must be repeated, enrolment in that subject must be at the first opportunity following the initial failure.
• Students may not enrol in any subject for which the prerequisite has not been passed.
• Student enrolment will not normally be approved where the total proposed subject hours exceeds the normal total subject hours for a course year.
• Where enrolment in a co-requisite subject is required, enrolment in the co-requisite subject must take preference over enrolment in an elective.
• Where a subject is being repeated, requests for exemptions for part of the subject work are at the discretion of the Department or School offering the subject. Any exemption granted will normally apply for one year only.

**DISCIPLINARY FAILURE**
A student who has failed a subject on disciplinary grounds may not enrol in any further subjects without the permission of the Faculty Dean.

**REPEATING SUBJECTS**
A student who has withdrawn twice in any subject without receiving a penalty grade must seek the permission of the lecturer in charge before being permitted to re-enrol in that subject.

**STAGE COMPLETION**
A student may apply for a Stage Completion if:
• all subjects in the course except one have been passed;
• a result of N1 (40 per cent–49 per cent) is achieved in the failed subject;
• the failed subject is not a prerequisite for any other subject in the course.

The granting of a Stage Completion is at the discretion of the Head of School and is not regarded as a pass in the failed subject.

**DEFERMENT FROM AWARD COURSE**
The following rules apply to the courses of the School and are in addition to University regulations governing these areas.
• Approval of deferment is not automatic.
• Each application to defer will be dealt with on an individual basis by the School Administrator in consultation with appropriate academic staff members.
• A deferment will not be granted to VTAC applicants requesting a deferment at their first enrolment session. Students who fall into this category will be advised to re-apply for a place at the end of the year.
• In normal circumstances students must have successfully completed at least one semester of study, by passing at least 50 per cent of subjects undertaken, to be eligible for deferment.
• Except under exceptional circumstances students may apply to defer their studies for a total period not exceeding twelve months.
• Deferment will not normally be granted until consultation has taken place with the Course Co-ordinator (or nominee) and/or a student counsellor.
• Students failing to re-enrol at the end of their deferment period will automatically be withdrawn from their course of study.

**FURTHER INFORMATION**
For further information please contact the School of Molecular Sciences on (03) 9919-8271 or fax (03) 9919 8284.
Semester Two
ACE3010 Written and Oral Communications 3 6 12
RCS3000 Industrial Experience 3 12 -
RCS3602 Analytical Chemistry 3B 12 72
Elective (to 18cps over Session 2)(1) 18 12-36

PROGRESSION AND EXCLUSION REGULATIONS
1. Failure in more than 50 per cent of enrolled subjects (semester or whole of year) will be grounds for exclusion.
2. Failure in any subject three times shall constitute grounds for exclusion from the course.

STAGE COMPLETION BY COMPENSATION
Each degree course is composed of three years.

ADMISSION REQUIREMENTS
The minimum entry requirement for persons under 21 years of age on 1 January 2006 is the satisfactory completion of a Year 12 course of study approved by the Victorian Curriculum and Assessment Board (VCAB), or an equivalent program approved by Victoria University for entry.
Prerequisites are Units 3 and 4 in the following subjects: English, and Mathematics (any).
There is also provision for mature age entry and entry as a disadvantaged person. Mature age provisions apply to those persons aged 21 and over as at 1 January for the year in which they are applying. Entry into the degree can also be attained through TAFE articulation.

STAGE COMPLETED BY COMPENSATION

BACHELOR OF SCIENCE IN BIOTECHNOLOGY
Course Code: SBBY
CRICOS No: 038482G

COURSE OBJECTIVES
The biotechnology degree prepares students for exciting careers in cutting edge science. This program provides in depth education in many areas of modern biology including: genetic engineering, medical research, cloning, forensics, environmental biotechnology, microbiology and biochemistry. There is a strong emphasis on the development of laboratory-based skills for which the school is equipped with state-of-the-art facilities.
BACHELOR OF SCIENCE IN MEDICAL, FORENSIC AND ANALYTICAL CHEMISTRY
Course Code: SBMF
CRICOS No: 036142M

COURSE OBJECTIVES
The course provides theoretical and practical training in medical, forensic and analytical chemistry. The design of the course has taken account of recent market research indicating that employers seek graduates with specific skills in analytical chemistry as applied to industrial, medical and forensic issues. Concomitant studies in Molecular Sciences, Biosciences, Communication, Mathematics and Computer Literacy give the graduate the employment skills that support the technical expertise.

The course is designed to meet the professional membership requirements of The Royal Australian Chemical Institute (RACI). The course commences with a typical first year that exposes the student to a wide range of science disciplines. Second year has core of subjects and a selection of electives. In the final year chemical knowledge and applications are consolidated through appropriate choices of subjects and electives.

ADMISSION REQUIREMENTS
Admission will be based upon completion of VCE or equivalent Year 12 qualification. Prerequisites are Units 3 and 4 in English and Mathematics (any). Thus, in keeping with the intention of the University to operate an open access policy, the absence of prior studies in chemistry in particular, and science in general will not preclude admission to the proposed course. However, applicants who have successfully completed Chemistry and/or Specialist Mathematics and/or Physics will be deemed to have a TER of 3 percentage points higher for each study. Certain subjects passed in other courses at Victoria University or at other Institutions may be considered for advanced standing. Provision will be made for articulation from TAFE science programs with appropriate credit.

COURSE STRUCTURE
The course is offered on a full-time basis over three years or part-time equivalent. Under some circumstances, mid-year entry will be permitted.

COURSE DURATION
The course commences with a typical first year that exposes the student to a wide range of science disciplines. Second year has core of subjects and a selection of electives. In the final year chemical knowledge and applications are consolidated through appropriate choices of subjects and electives.

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BACHELOR OF SCIENCE (HONOURS) IN CHEMICAL SCIENCES
Course Code: SHCB

BACHELOR OF SCIENCE (HONOURS) IN BIOLOGY (BIOTECHNOLOGY)
Course Code: SHBT

BACHELOR OF SCIENCE (HONOURS) IN NUTRITION AND FOOD SCIENCE
Course Code: SHFT

COURSE OBJECTIVES (FOR SHBT, SHFT AND SHCB)
An Honours program is available in each of the degree specialisations. The aim of the honours program is to provide a course of advanced study at a fourth year level which builds on the knowledge and skills developed at degree level, and to prepare students for postgraduate research by developing skills in: working independently, critical analysis of information, problem-solving, devising, designing and conducting experimental work and written and oral communication.

ADMISSION REQUIREMENTS
To qualify for entry to the honours program, applicants must hold a degree or equivalent with major studies in a relevant discipline and should normally have obtained a ‘credit’ average, or equivalent, in the final year of the degree.

COURSE DURATION
The courses are offered on a full-time basis over one year or equivalent if on a part-time basis. Entry to the Honours program for the Conservation Biology and Environmental Management specialisation can be either at the beginning of the academic year (February) or at a mid-year intake (July) to allow for field-based research with seasonal limitations.

COURSE STRUCTURES
The structure of these three honours courses is as follows:

RBF4000 Science Honours or 98
RCS4410 Honours Project (Part-Time) 48

The course consists of advanced coursework and a research thesis. Assessment will be based on written assignments, seminar presentations, a written examination and the research thesis. Coursework assessment will be based on seminar presentations, written assignments and examination.

PROFESSIONAL RECOGNITION
The Food Science and Technology specialisation has been accredited by the Australian Institute of Food Science and Technology and graduates in this specialisation will be eligible for membership.
The School of Nursing and Midwifery promotes excellence in nursing research and practice through education. A diverse range of programs are offered, from undergraduate degree, articulated post graduate nursing, midwifery and health-related programs, to Research Masters and PhD. Courses within the School provide students with flexible career options in family and community health, mental health, aged care and acute care nursing. Courses are developed to meet the requirements of the professional and accrediting bodies.

The Bachelor of Nursing (pre-registration) is a three-year degree program which prepares students for registration as Division 1 nurses with the Nurses Board of Victoria. Graduates will be qualified to practice in a range of health care settings, including acute care, extended care and the community. The School has a comprehensive clinical program, providing students with exposure to contemporary nursing practice. A feature of the program is the range of practice opportunities available. Articulation pathways are available to students registered as Division 2 nurses.

The Bachelor of Nursing (post registration) is offered to Division 1, 3 and 4 nurses with a Certificate or Diploma, on a one-year full-time or two-year part-time basis. The course provides students with the opportunity to update and critique current nursing practice and to develop skills in evidence based nursing practice.

The Bachelor of Nursing (Honours) is an opportunity for graduates to develop advanced skills in nursing theory and research.

## COURSE OFFERINGS
In 2006, the School of Nursing and Midwifery will offer the following undergraduate courses at the St Albans campus:

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Full-time</th>
<th>Part-time</th>
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<tr>
<td>Bridging Course (Division 2)</td>
<td>Y</td>
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<tr>
<td>Bridging Course (Graduate Entry)</td>
<td>Y</td>
<td>n/a</td>
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## NON-AWARD SHORT COURSES

### BRIDGING COURSE (DIVISION 2 ENTRY)
Course Code: HSVN
Degree preparation for Division 2 Nurses

**COURSE OBJECTIVES**
The aim of this non-award course is to prepare Division 2 Registered Nurses who have completed the 12-month TAFE course for entry into the Bachelor of Nursing Course.

**ADMISSION REQUIREMENTS**
Current Registration as a Division 2 registered nurse (or eligibility for registration) with the Nurses Board of Victoria.

**COURSE STRUCTURE**
HSD1114 Introduction to Health Assessment Studies
APP1021 Developmental Psychology
RBM1536 Human Bioscience B

### BRIDGING COURSE (GRADUATE ENTRY)
Course Code: HSGN
Degree preparation for Graduate Entry

**COURSE OBJECTIVES**
The aim of this non-award course is to prepare Graduate Entry applicants who have successfully completed a Degree for entry into the Bachelor of Nursing course.

**ADMISSION REQUIREMENTS**
Current Registration as a Division 2 registered nurse (or eligibility for registration) with the Nurses Board of Victoria.

**COURSE STRUCTURE**
HSG1113 Introduction to Nursing Studies
APP1021 Developmental Psychology
RBM1536 Human Bioscience A
AWARD COURSES

BACHELOR OF NURSING (DIVISION 2 ENTRY)
Course Code: HBVN

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CAREER PROSPECTS
Career opportunities for Division 1 Registered Nurses are available in clinical practice, clinical management, education and research areas. Nurses are able to practice in a range of settings including hospitals community and mental health agencies, aged care and health care industries.

COURSE REGULATIONS
The following should be read in conjunction with the Faculty Regulations detailed earlier in this Handbook, and the University Statutes and Regulations.

CLINICAL PLACEMENT
Students should note that they will be subject to safety screening (Victoria Police) checks before placement, in accordance with Department of Human Services policy. Students will also be asked to declare their immunisation status to satisfy the requirements of the hospital/agency at which they will be placed.

CLINICAL MAKEUP
Students who have been absent from clinical experience during semester, are required to provide appropriate documentation [e.g. medical certificate or a statutory declaration] to account for their absence.

Absence from clinical placement may affect a student’s ability to demonstrate an acceptable level of competency. Students will be rated as ‘incomplete’ if documentary evidence for their absence can be provided. Further clinical learning and assessment may be offered to replace the day/s of absence. The provision of make-up time is at the discretion of the School and students should not assume that it is an automatic right. Students who do not provide documentary evidence or do not attend the arranged clinical make-up will incur a ‘fail’ or ‘unsatisfactory’ grade and will be required to repeat the relevant Nursing subject.

BACHELOR OF NURSING (GRADUATE ENTRY)
Course Code: HBGN

COURSE OBJECTIVES
The Course aims to provide students with the following attributes:

- a sound knowledge of the theory and practice of nursing;
- an understanding and appreciation of health and illness as it is influenced by a variety of political, social, psychological, economic, cultural, and biological factors;
- a broad range of clinical practice skills that can be used to provide care to individuals, families, and communities within the context of the promotion of health, the prevention of ill health, the management of in ill health, and attempts to promote recovery from ill health;
- comprehension nursing skills that will lead to employment and beginning practice in a broad range of health care settings;
- an ability to practice independently, in an ethical and professional manner and collaboratively in multidisciplinary settings;
- an ability institutional and social change in health care settings;
- locate, evaluate, manage and use information technology effectively.

COURSE DURATION
This course will be offered full-time over two years.

ADMISSION REQUIREMENTS
To qualify for admission to this course applicants must be graduates of other degree programs and must have satisfactory completion of recognised graduate study in Introduction to Nursing, Human Bioscience and Psychology.

For students who have not completed the appropriate higher degree study, a bridging program is available prior to commencement of the course in order to meet the above prerequisites. The program is offered in January – February each year and will consist of the following subjects:

- Introduction to Nursing Studies;
- Human Bioscience;
- Psychology.
BACHELOR OF NURSING
(GRADUATE ENTRY)
Course Code: HBGN
(Continuing students only)

COURSE STRUCTURE

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Clinical Practicum 9: Electives
- HNB3243 Acute Care 16 140
- HNB3244 Mental Health & Illness
- HNB3228 Child, Adolescent and Family
- HNB3246 Health & Illness in Older Adults

Consolidation
- HNB3250 Clinical Practicum 9: Consolidation 16 140

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BACHELOR OF NURSING
(PRE-REGISTRATION)
Course Code: HBRN

COURSE OBJECTIVES
The aims of the course are to:
- prepare competent beginning nurse practitioners who are eligible and able to practice in a variety of health care settings;
- provide an education which contributes to the student’s personal, professional, and intellectual growth;
- prepare students in ways to help them begin to deal with the world of work with its attendant uncertainties, ambiguities, conflicts and change.
- prepare students who can participate effectively in a teamwork approach; and
- enable graduates to register professionally as Division 1 nurses with the Nurses Board of Victoria.

COURSE DURATION
The course is offered over three years on a full-time or part-time equivalent.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must have successfully completed the Victorian certificate of Education (VCE) including Units 3 and 4 with a study score of at least 25 in English any and study score of at least 20 in one of biology, chemistry, health and human development, physics, psychology or mathematics (any combination).

Applicants who do not meet the normal admission requirements but who process appropriate educational qualifications, work or life experiences which would enable them to successfully undertake the course, will be considered for admission.
# BACHELOR OF NURSING (PRE-REGISTRATION)

Course Code: HBUN

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## CAREER PROSPECTS
Career opportunities for Division 1 Registered Nurses are available in clinical practice, clinical management, education and research areas. Nurses are able to practice in a range of settings including hospitals community and mental health agencies, aged care and health care industries.

## COURSE REGULATIONS
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CLINICAL PLACEMENT
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BACHELOR OF NURSING
(POST-REGISTRATION)
Course Code: HBPNN
(Course not offered in 2006)

COURSE OBJECTIVES
This course aims to:
• develop and enhance interpersonal and group skills;
• describe, subject to critical analysis, and apply to practice, some contemporary theories of nursing and models of practice;
• examine several of the current issues and trends related to nursing and health care and consider their implications for practice and the provision of service to the community;
• gain knowledge and skills in various research methods and develop competence in conducting research;
• extend knowledge, deepen understanding and increase competence in a chosen field of practice; and
• explore and pursue alternative approaches to nursing practice within the context of the Australian health care system.

COURSE DURATION
The course is offered over one year on a full-time basis or part-time equivalent.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must be registered with the Nurses Board of Victoria. Applicants who do not meet the normal entry requirements will be considered for entry if they meet the following criteria:

• have satisfactorily completed a bachelor degree in nursing with a grade average of Credit (C) or higher throughout the course; and
• be eligible for registration as a Division 1 Nurse with the Nurses Board of Victoria.

Applicants who do not meet the normal entry requirements will be considered for entry if they meet the following criteria:

• satisfactory completion of a one-year post-registration degree in nursing with a grade average of Credit (C) or higher throughout the course; and
• eligibility for registration as a Division 1 or Division 3 Nurse with the Nurses Board of Victoria; or
• satisfactory completion of a bachelor degree in a discipline other than nursing with a grade average of Credit (C) or higher throughout the course; and
• eligibility for registration as a Division 1 or Division 3 Nurse with the Nurses Board of Victoria.

COURSE STRUCTURE

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Credit Points</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHF1124 Issues and Trends in Health</td>
<td>12</td>
<td>39</td>
</tr>
<tr>
<td>HHF1125 Knowledge and Nursing Knowledge</td>
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<td>39</td>
</tr>
<tr>
<td>HHF1243 Nursing Studies 3 Clinical Project</td>
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<td><strong>Total</strong></td>
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<thead>
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<th>Semester Two</th>
<th>Credit Points</th>
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<tbody>
<tr>
<td>HNB1234 Professional Nursing 2</td>
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<tr>
<td>HNB3237 Research Practice</td>
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<tr>
<td>Nursing Studies (1) electives</td>
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<td>Nursing Studies (2) elective</td>
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Electives

<table>
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<tr>
<th>Semester One/Semester Two</th>
<th>Credit Points</th>
<th>Hours per week</th>
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<tr>
<td>HNB1235 Evidence Based Health Care</td>
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<td>(Nursing Studies 1 elective)</td>
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<tr>
<td>HNB3236 Transition to Professional Practice</td>
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<tr>
<td>(Nursing studies 2 elective)</td>
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<tr>
<td>Electives to be offered offshore only.</td>
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<tr>
<td>HHE1673 Health Assessment</td>
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<tr>
<td>HHE0001 Introduction to Nursing Management</td>
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</table>

BACHELOR OF HEALTH SCIENCE (HONOURS)
– NURSING
Course Code: HHNU

COURSE OBJECTIVES
The aims of the course are to enable graduates to:
• demonstrate advanced knowledge and specialised skill in the selection, application and integration of qualitative research methods to generate, test and extend theory;
• assess how the concepts of causality, correlation and probability impact on choice of scientific design derived from the classic experimental model;
• recognise the relationship between a research problem and research design;
• examine a variety of philosophical positions and be able to determine their contribution to nursing’s epistemology; and
• facilitate professional ethical and moral development in practice and research.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must:
• have satisfactorily completed a bachelor degree in nursing with a grade average of Credit (C) or higher throughout the course; and
• be eligible for registration as a Division 1 Nurse with the Nurses Board of Victoria.

Applicants who do not meet the normal entry requirements will be considered for entry if they meet the following criteria:

• satisfactory completion of a one-year post-registration degree in nursing with a grade average of Credit (C) or higher throughout the course; and
• eligibility for registration as a Division 1 or Division 3 Nurse with the Nurses Board of Victoria; or
• satisfactory completion of a bachelor degree in a discipline other than nursing with a grade average of Credit (C) or higher throughout the course; and
• eligibility for registration as a Division 1 or Division 3 Nurse with the Nurses Board of Victoria.

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COURSE DURATION

The duration of the course is offered over one year on a full-time basis or part-time equivalent.

COURSE STRUCTURE

Students are required to study three specified subjects and to complete a minor thesis within two semesters of full-time study (or the part-time equivalent). The structure of the course permits some flexibility in that all four subjects of one-semester duration may be taken in any order and do not have any prerequisite or Corequisite requirements.

In order to be awarded a Bachelor of Health Science (Honours) – Nursing students must complete all subjects with Honours H3 or above.

<table>
<thead>
<tr>
<th>Semesters One and Two</th>
<th>Credit</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNH4312 Minor Thesis A</td>
<td>16</td>
<td>39 or 39</td>
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<tr>
<td>HNH4314 Minor Thesis B (full-time) or</td>
<td>48</td>
<td>78 or 78</td>
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<tr>
<td>HNH4313 Minor Thesis B (part-time) (2 x 12)</td>
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<td>39 &amp; 39</td>
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<tr>
<td>HFR0001 Advanced Quantitative Research Methods</td>
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<td>39</td>
</tr>
<tr>
<td>HFR0002 Advanced Qualitative Research Methods</td>
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<tr>
<td>HHM6000 Nursing Inquiry &amp; Knowledge</td>
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<td>39</td>
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BACHELOR OF MIDWIFERY

Course Code: HBNW

(Subject to approval by the Nurses Board of Victoria)

COURSE OBJECTIVES

The course aims to prepare midwives who will be able to:

• practice competently and confidently in a variety of maternity settings;
• demonstrate practice which is evidence-informed, according to the ACMI Competency Standards for Midwives (2001);
• reflect attitudes which are congruent with the philosophy of valuing women, women-centred care, and woman-midwife partnership;
• work both as a primary carer and in collaboration with other healthcare professionals in providing comprehensive care through women’s reproductive life; and
• achieve employment in a variety of maternity care settings.

ADMISSION REQUIREMENTS

To qualify for admission to the course, an applicant must have successfully completed the Victorian Certificate of Education (VCE), with Units 1 and 2 Maths (any); Units 3 and 4 English and a study score of at least 25; Units 3 and 4 of at least one of the following: Biology, Chemistry, Health Education, Psychology, Human Development, Physics, or Maths (any).

Applicants who do not meet the normal admission requirements but who possess appropriate educational qualifications, work or life experiences which would enable them to successfully undertake the course, will be considered for admission.

COURSE REGULATIONS

The following should be read in conjunction with the faculty regulations detailed earlier in this Handbook, and the University Statutes and Regulations.

PRACTICAL PLACEMENT

Students should note that they will be subject to safety screening (Police checks) before placement in accordance with Department of Human Services policy (March 2000). Students may also be asked to declare their immunization status to satisfy the requirements of the hospital/agency at which they will be placed.

ACADEMIC PROGRESSION

UNSATISFACTORY PROGRESS

Students will be deemed to have made unsatisfactory progress if they fail to complete the course in six calendar years (on full-time basis).

Each sequential stage of the course must be completed before progression to a subsequent stage.

COURSE DURATION

The course is offered over three years on a full-time basis.

COURSE STRUCTURE

(Year 1 only commencing in 2006)

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Credit</th>
<th>Hours per week</th>
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<tbody>
<tr>
<td>Semester One</td>
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<tr>
<td>RBM1515 Anatomy &amp; Physiology 1</td>
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<tr>
<td>AFT 1310 Psychology 1</td>
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<tr>
<td>HNM7113 Foundations in Midwifery Practice</td>
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<tr>
<td>HNM7115 Midwifery Studies 1:</td>
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<tr>
<td>The Childbearing Journey</td>
<td>8</td>
<td>70</td>
</tr>
<tr>
<td>HNM7114 Continuity of Care 1</td>
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<td>144</td>
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<tr>
<td>RBM 1525 Anatomy &amp; Physiology 2</td>
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<td>HNB1115 Healthcare law and ethics</td>
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<td>HNM7201 Midwifery Studies 2:</td>
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<td>HNM7202 Midwifery Practice 2:</td>
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Year 2
Semester Three

<table>
<thead>
<tr>
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<th>Points per week</th>
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<tr>
<td>ASE1320</td>
<td>Sociology of Indigenous Health</td>
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<tr>
<td>RBM 2528</td>
<td>Pathophysiology in Midwifery</td>
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<td>56</td>
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<tr>
<td>HMN7203</td>
<td>Midwifery Studies 3: Childbearing Complications</td>
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<td>HMN7204</td>
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Semester Four

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<tbody>
<tr>
<td>HNB3101</td>
<td>Research for practice</td>
<td>8</td>
<td>56</td>
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<tr>
<td>HMN7205</td>
<td>Midwives working with women from diverse backgrounds</td>
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<tr>
<td>HMN7206</td>
<td>Midwifery Practice 4: Women’s Health</td>
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<td>HMN7207</td>
<td>Midwifery Studies 4: Women’s Health</td>
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<td>HMN7208</td>
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Year 3
Semester Five

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<tr>
<td>HNB7309</td>
<td>Applied Medication Management</td>
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<tr>
<td>HMN7310</td>
<td>Midwifery Studies 5: Childbearing Complications</td>
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<td>HMN7311</td>
<td>Midwifery Practice 5: Childbearing Complications</td>
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<td>HMN7312</td>
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Semester Six

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<tbody>
<tr>
<td>HMN7313</td>
<td>Midwifery Studies 6: Babies Needing Extra Care</td>
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<td>HMN7314</td>
<td>Midwifery Practice 6: Babies Needing Extra Care</td>
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<td>HMN7315</td>
<td>Midwifery Practice 7: Consolidation</td>
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Total Year Two: 96 328

Year Three
Semester One

<table>
<thead>
<tr>
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<tr>
<td>HMN3010</td>
<td>Navigating Childbearing Obstacles</td>
<td>16</td>
<td>208*</td>
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<td>HMN3011</td>
<td>Women’s Health Practice</td>
<td>16</td>
<td>120*</td>
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<tr>
<td>HMN7007</td>
<td>Childbearing Obstacles</td>
<td>8</td>
<td>4</td>
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<tr>
<td>JMO3105</td>
<td>Women’s Health: Women’s Business</td>
<td>8</td>
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</tbody>
</table>

Total Year Three: 96 810

PROFESSIONAL RECOGNITION
Graduates from this program will be eligible for registration with the Nurses Board of Victoria. Graduates may also apply for membership of the Australian College of Midwives Inc.

BACHELOR OF MIDWIFERY
Course Code: HBMI

COURSE STRUCTURE
(Continuing students only)

Year Two
Semester One

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>HNM2010</td>
<td>Practice Allegiances</td>
<td>16</td>
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<tr>
<td>JAC0216</td>
<td>With Women Rethinking Pain</td>
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<tr>
<td>JAC0217</td>
<td>Unpacking Midwifery Knowledge</td>
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<tr>
<td>HNB2137</td>
<td>Ethics and Legal Studies</td>
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Semester Two

<table>
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<tr>
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<tr>
<td>HNM2020</td>
<td>Towards a Midwife Self</td>
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<td>208*</td>
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<td>JAC0219</td>
<td>Women’s Health: Sociopolitical Context</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>HNM7006</td>
<td>Midwives Working With Diversity</td>
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<tr>
<td>HNB1235</td>
<td>Evidence Based Health Care</td>
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Total Year Two: 96 328

Year Three
Semester One

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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Points per week</th>
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<tbody>
<tr>
<td>HMN3010</td>
<td>Navigating Childbearing Obstacles</td>
<td>16</td>
<td>208*</td>
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<tr>
<td>HMN3011</td>
<td>Women’s Health Practice</td>
<td>16</td>
<td>120*</td>
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<tr>
<td>HMN7007</td>
<td>Childbearing Obstacles</td>
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<td>4</td>
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<td>JMO3105</td>
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Semester Two

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<tr>
<th>Course Code</th>
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<tr>
<td>HNM3020</td>
<td>Working With Babies</td>
<td>16</td>
<td>208*</td>
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<tr>
<td>HNM3021</td>
<td>Independent Learning Unit</td>
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<td>78</td>
</tr>
<tr>
<td>JAC0335</td>
<td>Babies Needing Extra Care</td>
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<td>4</td>
</tr>
<tr>
<td>HMN7010</td>
<td>Hanging up a Shingle (Monash)</td>
<td>8</td>
<td>52</td>
</tr>
</tbody>
</table>

Total Year Three: 96 810

77
The Sustainability Group operates on the St Albans Campus of the University. In line with Faculty objectives, the Group is committed to the development and promotion of science. The Group seeks to provide students with vocationally- and educationally-oriented experiences and expertise which will equip them for entry into a work environment in which there is likely to be significant career changes during their working life. Consequently, the Group provides courses and programs with a close relationship between theory and practice and seeks to include relevant industrial experience within each award course. The Group also seeks to foster within its students a personal pride in and a professional attitude to their work and a full understanding of their responsibilities to society as trained scientists.

It is the belief of the Group that active involvement in research and consultancy is vital in providing quality teaching as well as in developing a viable and practical course for the students. To this end, all academic staff have doctoral degrees and substantial research and consultancy experience. The Group endeavours to develop close relationships with industry and the community to keep abreast of their respective needs. To this end, student projects are performed in collaboration with industry, the community, government bodies and research institutes wherever possible. The Group is equipped with world class laboratories and equipment for teaching and research. These include access to the Queenscliff laboratories of the Victorian Marine Science Consortium, a well equipped aquatic research laboratory, SCUBA equipment, a 4WD vehicle, GPS units, various environmental measurement devices and excellent facilities for microbiological work. The Group also offers Master of Science and Doctor of Philosophy degrees by research and Masters and Graduate Diploma coursework programs. Further details are given in the Postgraduate Studies section of the Handbook.

**COURSES OFFERED**
The Sustainability Group offers undergraduate courses leading to the award of:
- Bachelor of Science;
  - Ecology and Sustainability;
- Bachelor of Science (Honours).

**GROUP REGULATIONS**
The following regulations apply to all courses and subjects administered or taught by the Sustainability Group and are in addition to University regulations governing these areas as laid down in the Statutes and Regulations.

**AWARDS**
A student shall qualify to receive an award when that student has successfully completed all the requirements and prescribed subjects of the course.

**ASSESSMENT**
Student assessment will embrace both formal assessment through final examination and continuous assessment incorporating unit tests, assignments, report writing, problem solving exercises, class presentations and laboratory, project and field work. Students would normally be expected to satisfactorily complete each component of the assessment to gain a pass in the subject.

**PRACTICAL WORK**
A minimum of 80 per cent attendance is required at all practical sessions. Failure to attend at least 80 per cent of practical sessions will automatically constitute unsatisfactory completion of the subject. Practical reports will only be accepted from those students who have attended practical sessions for their full duration.

**LATE SUBMISSION**
Students failing to submit assessable work by the prescribed deadline will incur a penalty of five percentage marks per day for the first ten days after the prescribed deadline. Work submitted after this time will not be assessed and students will be granted a zero grade. This requirement may be varied at the discretion of the subject co-ordinator.

**SUPPLEMENTARY ASSESSMENT**
Students may be granted supplementary assessment with a maximum of two supplementary assessments being permitted in any one full-time academic year. Supplementary assessment will not be available for subjects that are being repeated.

**USE OF ELECTRONIC CALCULATORS AND STORAGE DEVICES**
The use of electronic calculators and electronic storage devices is not permitted in any examination unless specified in the subject guide for that subject and/or on the examination paper for that subject.

**UNSATISFACTORY PROGRESS**
Students in any one of the following categories may be asked to show cause as to why they should not be excluded from the course:
- those who fail 50 per cent or more of their assessable enrolment load (expressed in subjects) in any semester;
- those who fail the same subject twice;
- those who transgress a conditional enrolment agreement.

**DURATION OF EXCLUSION**
Excluded students have no automatic right of re-admission to the course from which they were excluded. Students who have been excluded may apply for re-admission not less than one calendar year from the date of exclusion. These students must provide, with their application, evidence of changed circumstances that significantly improve the applicant’s chances of academic success.

**PROGRESSION**
Progression through the course is based on the following guidelines:
- where any compulsory subject must be repeated, enrolment in that subject must be at the first opportunity following the initial failure;
- students may not enrol in any subject for which the prerequisite has not been passed;
- student enrolment will not normally be approved where the total proposed subject hours exceeds the normal total subject hours for a course year;
- where enrolment in a co-requisite subject is required, enrolment in the co-requisite subject must take preference over enrolment in an elective;
- where a subject is being repeated, requests for exemptions for part of the subject work are at the discretion of the Department or School offering the subject. Any exemption granted will normally apply for one year only.
EDUCATION GRADUATES

BIOLOGY AND GENERAL SCIENCE TEACHING FOR PHYSICAL EDUCATION GRADUATES

The School of Biomedical Sciences and Sustainability Group have arranged elective subjects to assist Physical Education and Recreation students planning a secondary teaching career. The School offers two elective programs designed to facilitate the entry of Bachelor of Applied Science – Physical Education graduates into a second teaching method in a Diploma of Education course and to subsequently gain registration with the Ministry of Education to teach either Biology or General Science, in addition to Physical Education.

To obtain registration in General Science, the Ministry of Education requires that students take subjects equivalent to one quarter of the first year of their Bachelor of Applied Science course in each of two science areas, both of which have the potential to be extended to sub-majors. A sub-major in a science area is defined by the Ministry as a commitment of one quarter of the first year load and one quarter of the second year load to subjects in this science area. The physical education degree at Victoria University, Footscray Park Campus, is based upon a unit system such that one semester-hour of contact is equivalent to one unit. Since the degree requires a minimum of 144 units (48 units per year), then one quarter of a year corresponds to 12 units. To obtain General Science registration based upon chemistry and biology therefore, requires at least 12 units devoted to chemistry and 12 units to biology in the first year of the degree.

To obtain registration in biology, it is necessary to take sufficient biology subjects to constitute a sub-major, i.e. at least 12 units of biology in first year and 23 units of biology in second year.

Details of the two streams of study are set out below; the code number is given for each subject.

**GENERAL SCIENCE STREAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Subject Name</th>
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<tbody>
<tr>
<td>RCS1006</td>
<td>Chemistry 1</td>
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<tr>
<td>RBM1518</td>
<td>Human Physiology 1</td>
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<td>or</td>
<td>RBF1310</td>
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<tr>
<td>RBM1528</td>
<td>Human Physiology 2</td>
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<tr>
<td>or</td>
<td>RBF1320</td>
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<td>RBM2260</td>
<td>Diet and Nutrition</td>
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**BIOLOGY STREAM**

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<td>Applied Microbiology</td>
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<td>or</td>
<td>RBF1310</td>
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<tr>
<td>RBM1528</td>
<td>Human Physiology 2</td>
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<tr>
<td>or</td>
<td>RBF1320</td>
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<tr>
<td>RBM2260</td>
<td>Diet and Nutrition</td>
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<tr>
<td>RBMS264</td>
<td>Advanced Nerve and Muscle Physiology</td>
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<tr>
<td>RBPF2610</td>
<td>Fundamentals of Ecology</td>
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<td>RBF2640</td>
<td>Australian Animals</td>
</tr>
<tr>
<td>RBF2620</td>
<td>Australian Plants</td>
</tr>
<tr>
<td>RBF3600</td>
<td>Aquatic Ecology</td>
</tr>
</tbody>
</table>

**FACULTY OF HEALTH, ENGINEERING AND SCIENCE**

**DISCIPLINARY FAILURE**

A student who has failed a subject on disciplinary grounds may not enrol in any further subjects without the permission of the Faculty Dean.

**REPEATING SUBJECTS**

A student who has withdrawn twice in any subject without receiving a penalty grade must seek the permission of the lecturer in charge before being permitted to re-enrol in that subject.

**STAGE COMPLETION**

A student may apply for a Stage Completion if:

- all subjects in the course except one have been passed;
- a result of N1 (40 per cent–49 per cent) is achieved in the failed subject;
- the failed subject is not a prerequisite for any other subject in the course.

The granting of a Stage Completion is at the discretion of the Head of Group and is not regarded as a pass in the failed subject.

**DEFERMENT FROM AWARD COURSE**

The following rules apply to the courses of the Group and are in addition to University regulations governing these areas:

- approval of deferment is not automatic;
- each application to defer will be dealt with on an individual basis by the Group Administrator in consultation with appropriate academic staff members;
- a deferment will not be granted to VTAC applicants requesting a deferment at their first enrolment session. Students who fall into this category will be advised to re-apply for a place at the end of the year;
- in normal circumstances students must have successfully completed at least one semester of study, by passing at least 50 per cent of subjects undertaken, to be eligible for deferment;
- except under exceptional circumstances students may apply to defer their studies for a total period not exceeding twelve months;
- deferment will not normally be granted until consultation has taken place with the Course Co-ordinator (or nominee) and/or a student counsellor;
- students failing to re-enrol at the end of their deferment period will automatically be withdrawn from their course of study.

**FURTHER INFORMATION**

For further information please contact the Sustainability Group on (03) 9919-2667 or fax (03) 9919 2493.

**BACHELOR OF SCIENCE IN ECOLOGY AND SUSTAINABILITY**

Course Code: SBES
CRICOS No: 047050B

**COURSE OBJECTIVES**

This course provides the flexible combinations of professional education and technical training that are required to develop the practical solutions necessary to achieve sustainable management of the Australian environment. There is a strong emphasis on hands-on skills, including building links across scientific, social and business sectors environmental analysis, effective communication and project management.

The course structure is based on a limited number of core subjects which provide a solid foundation to understanding of the biology, ecology and sustainable management of the Australian landscape, supplemented by a wide range of electives drawn from the environmental engineering, business, tourism, community development and human bioscience disciplines.

**STAGE COMPLETION**

A student may apply for a Stage Completion if:

- all subjects in the course except one have been passed;
- a result of N1 (40 per cent–49 per cent) is achieved in the failed subject;
- the failed subject is not a prerequisite for any other subject in the course.

The granting of a Stage Completion is at the discretion of the Head of Group and is not regarded as a pass in the failed subject.

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**FURTHER INFORMATION**

For further information please contact the Sustainability Group on (03) 9919-2667 or fax (03) 9919 2493.

**BIOLOGY AND GENERAL SCIENCE TEACHING FOR PHYSICAL EDUCATION GRADUATES**

The School of Biomedical Sciences and Sustainability Group have arranged elective subjects to assist Physical Education and Recreation students planning a secondary teaching career. The School offers two elective programs designed to facilitate the entry of Bachelor of Applied Science – Physical Education graduates into a second teaching method in a Diploma of Education course and to subsequently gain registration with the Ministry of Education to teach either Biology or General Science, in addition to Physical Education.

To obtain registration in General Science, the Ministry of Education requires that students take subjects equivalent to one quarter of the first year of their Bachelor of Applied Science course in each of two science areas, both of which have the potential to be extended to sub-majors. A sub-major in a science area is defined by the Ministry as a commitment of one quarter of the first year load and one quarter of the second year load to subjects in this science area. The physical education degree at Victoria University, Footscray Park Campus, is based upon a unit system such that one semester-hour of contact is equivalent to one unit. Since the degree requires a minimum of 144 units (48 units per year), then one quarter of a year corresponds to 12 units. To obtain General Science registration based upon chemistry and biology therefore, requires at least 12 units devoted to chemistry and 12 units to biology in the first year of the degree.

To obtain registration in biology, it is necessary to take sufficient biology subjects to constitute a sub-major, i.e. at least 12 units of biology in first year and 23 units of biology in second year.

Details of the two streams of study are set out below; the code number is given for each subject.

**GENERAL SCIENCE STREAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Subject Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCS1006</td>
<td>Chemistry 1</td>
</tr>
<tr>
<td>RBM1518</td>
<td>Human Physiology 1</td>
</tr>
<tr>
<td>or</td>
<td>RBF1310</td>
</tr>
<tr>
<td>RBM1528</td>
<td>Human Physiology 2</td>
</tr>
<tr>
<td>or</td>
<td>RBF1320</td>
</tr>
<tr>
<td>RBM2260</td>
<td>Diet and Nutrition</td>
</tr>
</tbody>
</table>

**BIOLOGY STREAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Subject Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>RBF2192</td>
<td>Applied Microbiology</td>
</tr>
<tr>
<td>RBM1518</td>
<td>Human Physiology 1</td>
</tr>
<tr>
<td>or</td>
<td>RBF1310</td>
</tr>
<tr>
<td>RBM1528</td>
<td>Human Physiology 2</td>
</tr>
<tr>
<td>or</td>
<td>RBF1320</td>
</tr>
<tr>
<td>RBM2260</td>
<td>Diet and Nutrition</td>
</tr>
<tr>
<td>RBMS264</td>
<td>Advanced Nerve and Muscle Physiology</td>
</tr>
<tr>
<td>RBPF2610</td>
<td>Fundamentals of Ecology</td>
</tr>
<tr>
<td>RBF2640</td>
<td>Australian Animals</td>
</tr>
<tr>
<td>RBF2620</td>
<td>Australian Plants</td>
</tr>
<tr>
<td>RBF3600</td>
<td>Aquatic Ecology</td>
</tr>
</tbody>
</table>
Students can choose from electives according to the four major streams in the course: a) ecology and natural resource management (with specialisations in aquatic engineering and environmental engineering); b) ecology and community development; c) ecology and tourism/business; d) ecology and human bioscience/wellness. These are suggested streams only and students may select electives according to their desired academic and career pathway, subject to approval from the Head of Group.

The course teaches students the necessary skills to perform a wide range of activities in ecology and environmental science in addition to environmental issues and community studies, and the skills for communicating their ecological knowledge to science professionals and non-professionals. The course structure is practically based and flexible, allowing a mix of in-depth studies and specializations with novel combinations of subjects and skills across diverse disciplines not usually covered in science courses.

**ADMISSION REQUIREMENTS**

The minimum entry requirement for persons under 21 years of age on 1 January 2005 is the satisfactory completion of a Year 12 course of study approved by the Victorian Curriculum and Assessment Board (VCAB) or an equivalent program approved by Victoria University for entry.

The minimum ENTER score for 2005 is 70. Prerequisites are Units 3 and 4 – a study score of at least 20 in English (any).

There is also provision for mature age entry and entry as a disadvantaged person. Mature age provisions apply to those persons aged 21 years and over as at 1 January 2006.

**COURSE DURATION**

The Bachelor of Science in Ecology and Sustainability program requires the equivalent of three years full-time study. A fourth year may be taken in the Honours program.

**COURSE STRUCTURE**

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCS1110</td>
<td>Chemistry for Biological Sciences A</td>
<td>1 or 2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RCS1120</td>
<td>Chemistry for Biological Sciences B</td>
<td>1 or 2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RBF1150</td>
<td>Global Environmental Issues</td>
<td>1</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RBF1160</td>
<td>Australian Landscapes and Biota</td>
<td>2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RBF1300</td>
<td>Environmental Impacts &amp; Monitoring</td>
<td>1</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RBF2620</td>
<td>Australian Plants</td>
<td>2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RMA1110</td>
<td>Mathematics for the Biological &amp; Chemical Sciences 1 or 2</td>
<td>1</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RMA1120</td>
<td>Mathematics for the Biological &amp; Chemical Sciences 2 or 3</td>
<td>2</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

**Year 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>RBF2610</td>
<td>Fundamentals of Ecology</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RBF2640</td>
<td>Australian Animals</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RBF2650</td>
<td>Community and Environment</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RBF2660</td>
<td>Australian Plants</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RCS1110</td>
<td>Chemistry for Biological Sciences A</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RCS1120</td>
<td>Chemistry for Biological Sciences B</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RMA1110</td>
<td>Mathematics for the Biological &amp; Chemical Sciences 1 or 2</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RMA1120</td>
<td>Mathematics for the Biological &amp; Chemical Sciences 3 or 4</td>
<td>2</td>
<td>12</td>
</tr>
</tbody>
</table>

**Electives**

1. Students taking the Ecology and Human Bioscience/Wellness stream can take RBF1310 Biology 1 or RBF1510 Human Bioscience 1A

2. Students enrolled in the Natural Resource Management stream would be advised to take RCS1110 Chemistry for Biological Sciences A and RCS1120 Chemistry for Biological Sciences B, as these subjects are prerequisites for some 2/3 level core subjects in that stream. Students in other streams would not be so advised.

Students taking either of the Engineering specialisations within the Natural Resource Management stream should take RCS1110 Chemistry for Biological Sciences A and RCS1120 Chemistry for Biological Sciences B in their second year of study. All others within the stream should take these subjects in their first year.

Students enrolled in the Natural Resource Management stream would be required to take RMA1110 Mathematics for the Biological & Chemical Sciences 1 and RMA1120 Mathematics for the Biological & Chemical Sciences 2 if they lack VCE Mathematics, but could take an elective if they have VCE Mathematics. This is at the discretion of the course co-ordinator.

Students taking either of the Engineering specialisations within the Natural Resource Management stream should take RMA1110 Mathematics for the Biological & Chemical Sciences 1 and RMA1120 Mathematics for the Biological & Chemical Sciences 2 in first second year of study. All others within the stream should take these subjects in their second year.

Prescribed and free electives are those listed below.

**ELECTIVES**

At least 6 electives are required to be taken over the course of the degree. Electives other than those listed below may be taken at the discretion of the Head of School. The total subject hours must be within the prescribed range and due consideration must be given for prerequisites.

Science electives may be chosen from any of the degree subjects offered by other Faculties or may also be selected as elective subjects, subject to the approval of the appropriate Faculty. Students should refer to the subject outlines listed within other Schools and Faculties for further information.

Students are advised to seek the assistance of academic staff when making their elective choice, as the judicious selection of electives can provide an opportunity to undertake a second major study alongside the primary degree specialization.

**PRESCRIBED ELECTIVES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCS1110</td>
<td>Chemistry for Biological Sciences A</td>
<td>12</td>
<td></td>
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<tr>
<td>RMA1110</td>
<td>Maths 1 or Elective – from list below</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RCS1120</td>
<td>Chemistry for Biological Sciences B</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RMA1120</td>
<td>Maths 2 or Elective – from list below</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
AQUATIC ENGINEERING SPECIALIZATION
VNF2841 Fluid Mechanics 1 12
VCF2842 Hydraulics 12
VCF3841 Engineering Hydrology 12
VCF3842 Water Resources Engineering 12
VCG3861 Geomechanics 12
VCF4842 Geohydrological Engineering 12

ENVIRONMENTAL ENGINEERING SPECIALIZATION
VCN3882 Introduction to Environmental Engineering 12
VCN4881 Environmental Engineering 12
VCN4882 Environmental Engineering 2 12
VCT4872 Environmental Planning & Design 12

ECOLOGY AND COMMUNITY DEVELOPMENT STREAM
ASA1021 Community Development Theory and Practice 1 12
ASA1022 Community Development Theory and Practice 2 12
Students taking this stream should choose two electives from the following:
ASA2021 Community Development Theory and Practice 3 12
ASA2022 Community Development Theory and Practice 4 12
ASA3010 Sociology 3A 12
ASA3011 Sociology 3B 12
ASS3035 Sociology 2.3E (Environmental Policy) 12
ASC3095 Conflict Resolution in Groups and Communities 12

ECOLOGY AND TOURISM/BUSINESS STREAM
BHO1190 Introduction to Tourism 12
BHO2286 Nature-based Tourism 12
Students taking this stream should choose two electives from the following:
BHO2255 Tourism Enterprise Management 12
BHO1192 Travel Industry Management 12
BHO3437 Destination Planning and Development 12
BHO3500 Hospitality and Tourism Industry ProjVCT 12
BHO1171 Introduction to Marketing 12
BAO1101 Accounting for Decision Making 12

ECOLOGY AND HUMAN BIOSCIENCE/WELLNESS STREAM
RBM2530 Human Bioscience 3A (pathophysiology 1) 12
RBM2540 Human Bioscience 4A, or 12
RBM3810 Wellness 1 20
RBM3820 Wellness 2 20
Students taking this stream could include electives from the following:
RBM2260 Diet and Nutrition 20
RBM2560 Medical Biochemistry 12
RBM2610 Biomedical Sciences and Society 12
RBM1514 Functional Anatomy 1 20
RBM1524 Functional Anatomy 2 20
RBM2361 Epidemiology 12

SUITABLE FREE ELECTIVES
Some electives may be prescribed for certain streams.
RCS1110 Chemistry for Biological Sciences A 12
RMA1120 Maths 2 12
RCS1110 Chemistry for Biological Sciences B 12
FIELD TRIPS
Students will be required to participate in field trips throughout the course. These will vary from one-day excursions to three-day field camps. Some field trips may be held over weekends. Participation in these activities forms part of the assessment of the subjects, and provides essential experience in field techniques. Exemption from these activities is available only by prior application where circumstances preclude participation.

PROFESSIONAL RECOGNITION
Graduates of the course are eligible to join professional and learned societies such as the Ecological Society of Australia and the Australian Institute of Biologists.

BACHELOR OF SCIENCE (HONOURS) IN ECOLOGY AND SUSTAINABILITY
Course Code: SHAB

COURSE OBJECTIVES
An Honours program is available in each of the degree specialisations. The aim of the honours program is to provide a course of advanced study at a fourth year level that builds on the knowledge and skills developed at degree level, and to prepare students for postgraduate research by developing skills in working independently, critical analysis of information, problem-solving, devising, designing and conducting experimental work and written and oral communication.

ADMISSION REQUIREMENTS
To qualify for entry to the honours program, applicants must hold a degree or equivalent with major studies in a relevant discipline and should normally have obtained a 'credit' average, or equivalent, in the final year of the degree.

COURSE DURATION
The courses are offered on a full-time basis over one year or equivalent if on a part-time basis. Entry to the Honours program in Ecology and Sustainability specialisation can be at either at the beginning or the academic year (February) or at mid-year intake (July) to allow for field-based research with seasonal limitations.

COURSE STRUCTURE
The structure of these three honours courses is as follows:
RBF4000 Science Honours 120 credit points
(60 per semester)
UNDERGRADUATE SUBJECT DETAILS

For Learning Outcomes of each of the following subjects, visit the Faculty of Health, Engineering and Science website at www.vu.edu.au or telephone the Faculty of Health, Engineering and Science on (03) 9919 4191.

LANGUAGE AND COMMUNICATION SUBJECTS

Language and Communication subjects are offered at three levels:

**Australian English** is offered as a preliminary subject designed for students who are not sufficiently competent in English to successfully undertake a mainstream communication subject.

**Language and Communication** is a core unit consisting of either a one-semester subject or a two-semester subject with necessary variations tailored to the requirements of varying course structures.

**Professional Communication** focuses on the preparation and delivery of a major written and oral report, as well as employment preparation for final-year students.

**ACC1047 CULTURE AND COMMUNICATION**

**Campus** Footscray Park, St Albans

**Prerequisite(s)** Nil

**Content** This foundation subject introduces the study of communication and the intricate web of relationships involving communication and cultural organisation. Language is studied as a principal component of communication as are non-verbal aspects such as style and body language. The subject also examines how cultures develop a sense of collective and individual identity through stories, myths and films as forms of communication.

**Required Reading** To be advised by lecturer.

**Class Contact** Three hours per week for one semester.

**Assessment** Written assignments.

**ACC1048 MEDIA, CULTURE AND SOCIETY**

**Campus** Footscray Park, St Albans

**Prerequisite(s)** Normally students should have passed ACC1047 Culture and Communication

**Content** Explores how mass communication is today increasingly implicated in the way perceptions of the world are formed, and the way 'self' is shaped and understood. Topics to be covered include: The way images communicate, the role of advertising, media ownership in Australia, new media technologies, community media, audience studies special emphasis will be given to how media structures related to notions of the public sphere and democratic process.

**Required Reading** To be advised by lecturer.

**Class Contact** Three hours per week for one semester.

**Assessment** Written assignments, 70%; final examination, 30%.

**ACC3045 VIDEO PRODUCTION**

**Campus** St Albans and Sunway (Malaysia)

**Prerequisite(s)** ACC1047 Culture and Communication, ACC1048 Media, Culture and Society.

**Content** Students will be given a working understanding of the basic techniques and processes involved in single camera video production. The subject will deal with video recording techniques; composition; lighting; editing and dubbing; crew functions; interview techniques. Special emphasis will be given to video production work in a television studio context.

**Required Reading** To be advised by lecturer.

**ACC3046 COMMUNICATING WITH RADIO**

**Campus** St Albans

**Prerequisite(s)** To be eligible for this subject, students will have to be in their third and final year of a Communication Studies or Professional Writing major.

**Content** Students will be provided with the opportunity to engage with some basic radio production techniques and processes. The major emphasis of the subject is on spoken-word radio with a specific focus on interviewing and 'magazine' formats. Production work will include field interviewing with portable equipment, studio work, writing for radio, editing, elementary sound mixing and voice performance. If done to an adequate standard, production exercises will be broadcast on local community radio stations. Students are advised that the work required is substantial, with continuous assessment and that deadlines for work submissions must be kept through the semester.

**Required Reading** To be advised by lecturer.

**Class Contact** Four hours per week for one semester comprising lectures and workshops.

**Assessment** Production work, 80%; written commentaries, 20%.

**ACC3047 COMMUNICATING IN ORGANISATIONS**

**Campus** St Albans

**Prerequisite(s)** Normally, ACC3041 Language in Society, ACC3043 Interpersonal, Group and Organisational Communication.

**Content** Topics covered include: theories of organisational communication; communication roles in organisations; effect of gender, age and ethnicity on communication patterns and processes; communication flow and networks within organisations; accessibility and control of information. Weekly workshops will develop skills in the diagnosis and solution of communication problems in organisations, including network analysis, measurement of communication load, monitoring of information flow, communication auditing, Delphi groups and quality circles, analysis of organisational discourses.

**Required Reading** To be advised by lecturer.

**Class Contact** Three hours per week for one semester comprising one two-hour lecture/seminar and one one-hour tutorial.

**Assessment** Essay, 20%; class based activities, 20%; journals, 30%; test, 30%.

**ACE1145 CSM ENGLISH LANGUAGE AND COMMUNICATION**

**Campus** Footscray Park

**Prerequisite(s)** Nil

**Content** The skills of listening, speaking, reading and writing will be taught within the context of computing and mathematics. Basic grammar structures and writing conventions will be presented. Skills taught will develop the ability to take notes, summarise, synthesise,
research and reference. This will culminate in the research and writing of a correctly referenced report. Reading and listening comprehension will be enhanced through practice exercises. Oral skills will be developed through small group work and formal oral presentations.

**Required Reading** Handbook of Communication Skills for First Year Students in the Faculty of Health, Engineering and Science. Victoria University, 2006; Murphy R., English Grammar in Use, Cambridge, CUP 1994.


**Class Contact** 2x two hr workshops for one semester.

**Assessment** Oral Presentations, 20%; Summary, 10%; Synthesis, 10%; Research Report (1000 words), 15%; Aural Test, 10%; Class Exercises, 5%; Examination (2 hours), 30%.

### ACE1911 COMMUNICATIONS FOR THE PROFESSIONAL SCIENTIST 1

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** A series of lectures and workshops that will provide students with an introduction to communication theory and professional practice. This will cover the written communication skills of summarising, synthesising, note taking, report and essay writing, researching and referencing. Students will be encouraged to develop self-editing skills. Oral presentation techniques such as debating, formal, impromptu presentations and small group presentations will be developed. Students will be encouraged to focus on the holistic nature of the communication process. Context specific materials about sustainability and ecology will be delivered through lectures, videos and seminars.

**Required Reading** Handbook of Communication Skills for First Year Students in the Faculty of Science, Engineering and Technology. Victoria University, 2006.

**Recommended Reading** Mohan T (et al.) Communicating as Professionals, Thomson, Southbank, 2004.

**Class Contact** Four hours per week for one semester, two hours lectures, two hours workshops.

**Assessment** Synthesis (500 words), 10%; Essay (1500 words), 25%; Oral presentations, 25%; Exam, 40%.

### ACE1912 COMMUNICATIONS FOR THE PROFESSIONAL SCIENTIST 2

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** A series of lectures and workshops that develop and build upon the communication and professional skills acquired in Communications for the Professional Scientist 1. The writing of a group industry report, writing professional applications, preparing for oral and role playing interviews and extending oral presentation skills will be included. Small group interaction and meeting procedure will also be covered.

**Required Reading** Handbook of Communication Skills for First Year Students in the Faculty of Science, Engineering and Technology. Victoria University, 2006.

**Recommended Reading** Mohan T (et al.) Communicating as Professionals, Thomson, Southbank, 2004.

**Class Contact** Four hours per week: two hours of lectures, two hours of practicals.

**Assessment** Group Industry report (up to 2000 words), 15%; Written Application (up to 1000 words), 15%; Interview, 15%; Oral Presentation, 15%; Exam, 40%.

### ACE1913 PROFESSIONAL COMMUNICATION

**Campus** Werribee

**Prerequisite(s)** Nil

**Content** Context specific materials from the world of science will be used to develop the written communication skills of summarising, synthesising, note taking, report and essay writing, researching and referencing. Students will be encouraged to develop self-editing skills. Oral presentation techniques such as debating, formal and impromptu presentations and small group presentations will be developed.

**Required Reading** Handbook of Communication Skills for First Year Students in the Faculty of Science, Engineering and Technology 2006, Victoria University.

**Recommended Reading** Mohan T. (et al) 2004, Communicating as Professionals, Thomson, Southbank.

**Class Contact** Two x two hr workshops per week.

**Assessment** Evaluation Exercise (500 words), 10%; Synthesis (500 words), 10%; Essay (1500 words), 20%; Oral Presentations, 20%; Exam, 40%.

### ACE3145 PROFESSIONAL COMMUNICATION

**Campus** Footscray Park, Sydney, Malaysia and Hong Kong.

**Prerequisite(s)** ACE1145 or Year 12 English or competence in English.

**Content** The student’s ability as a competent communicator in the IT industry will be developed through a series of lectures and workshops. Perspectives on professional and organisational communication, as well as oral and written skills for the IT professional will form the basis of the lecture content. The writing of a group project report, writing professional applications, preparing for oral and role playing interviews and developing oral presentation skills will be included in the workshops.


**Recommended Reading** Handbook of Communication Skills for First Year Students in the Faculty of Health, Engineering and Science. Victoria University, 2006.

**Class Contact** 2x one hr lectures; 1x two hr workshop.

**Assessment** Oral Presentation, 10%; Group Project Report 1000 words, 10%; Written Application(s) 1500 words, 20%; Interview(s), 20%; Exam (3 hours), 40%.

### ACP1053 INTRODUCTION TO CREATIVE WRITING

**Campus** St Albans

**Prerequisite(s)** Nil.

**Content** This subject introduces students to the creative writing strand in the major in Professional Writing. The subject focuses on three writing areas – autobiography, short story and short film – and teaches key techniques used to write about personal life experience, and to write short stories and short film scripts. Students read a variety of personal writing, from poetry to essays, and a range of mainly Australian short stories by established writers and film scripts which have been produced as films. Students also read the published fiction of Professional Writing students in the literary magazine Offset, and are encouraged to contribute to the magazine. Lectures focus on historical and contemporary aspects of writing and creative writing, and on the contexts in which creative writers work. The course also features short film screenings and guest lectures by creative writers.

**Required Reading** A book of readings; Offset literary magazine (2002).

**ACP1054 INTRODUCTION TO MEDIA WRITING**

**Campus** St Albans  
**Prerequisite(s)** Normally ACP1053 Introduction to Creative Writing.  
**Content** This subject introduces students to the media writing strand in the major in Professional Writing. The subject focuses on three writing areas: advertising, journalism and public relations—and teaches key techniques used to write advertisements, and news and feature stories for the print media, and to write a range of public relations materials from media releases to speeches. Students read a variety of media material, ranging from advertisements to news and feature stories from newspapers and magazines, and the speeches of politicians. Lectures focus on the historical development of the media industries, their contemporary context, and the role of the advertising copywriter, journalist and public relations professional in these industries. The course also features guest lectures by media writers.  
**Class Contact** One one-hour lecture and one two-hour workshop each week for one semester.  
**Assessment** Four pieces of writing, 40%.

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**ACP2069 WRITING FOR THE WEB**

**Campus** St Albans  
**Prerequisite(s)** [Normally] ACP 1053 Introduction to Creative Writing; ACP 1054 Introduction to Media Writing.  
**Content** This subject examines forms and content areas in Web publication, and develops journalistic writing for the electronic publishing industry. The subject explores the diversity of Web publications and electronic communities, and enables students to research and practice writing for the Web. Topics covered include: the electronic publishing industry, online publications, writing for print compared to computer screen, interactivity, Web audiences and Web communities. Skills taught will include: writing styles for the Web, hard and soft news, types of feature article; writing for content areas such as sports, arts, humour, music and science, and for non-mainstream independent publishers; research, including interviewing and accessing online sources; Web publishing forms, interface design and context, writing links and summaries.  
**Required Reading** To be advised by lecturer.  
**Class Contact** One one-hour lecture and one two-hour workshop each week for one semester.  
**Assessment** Two assignments, each 30%; Portfolio comprising four pieces of writing, 40%.

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**ACP2070 EDITING PRINCIPLES AND PRACTICE**

**Campus** St Albans  
**Prerequisite(s)** Normally ACP1053 Introduction to Creative Writing; ACP1054 Introduction to Media Writing.  
**Content** This subject examines the principles and practices of editing and publishing, with special emphasis on their role and influence in history and contemporary society. Students will learn a range of practical techniques and applied theories of text editing in the context of small press and desktop publishing. The subject looks at the principles and practice of structural editing, copy editing, proof reading and the forms of communication used by editors, designers, authors and printers. It also includes consideration of communications law in relation to editing and publishing, such as copyright law.  
**Class Contact** One one-hour lecture and one two-hour tutorial each week for one semester.  
**Assessment** Take home layout and critique assignment, 20%; Editing project or essay, 40%; Examination, 40%.

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**ACP2079 PUBLISHING PRINCIPLES AND PRACTICE**

**Campus** St Albans  
**Prerequisite(s)** Normally ACP2070 Editing Principles and Practice.  
**Content** This subject examines the principles and processes of contemporary publishing in their cultural, political and economic contexts, and will include a special focus on their practical application. Students will learn advanced desktop publishing skills using a range of software programs. The subject will also involve a number of face-to-face meetings with industry professionals either in lectures or via excursions to their workplaces. It includes further consideration of communications law in relation to publishing, such as copyright and libel law.  
**Class Contact** One one-hour lecture and one two-hour workshop each week for one semester.  
**Assessment** Group publication project, 50%; Publishing proposal, 20%; Essay, 30%.

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**ACP3051 WRITING FOR PUBLIC RELATIONS AND ADVERTISING**

**Campus** St Albans  
**Prerequisite(s)** Normally ACP1053 Introduction to Creative Writing; ACP1054 Introduction to Media Writing; ACP2070 Editing Principles and Practice.  
**Content** What does it mean to be a citizen in Australian society? What are a citizen’s rights to express an opinion and participate in a democratic society? Public relations is often confused with men in grey suits and a great deal of hand shaking—advertising with gimmickry and the corporate product. Yet relating to the public is not a specialist activity. We all have the right to be involved in the ‘public sphere’, promote different forms of information, hold ‘public opinions’ and persuade others of our point of view. In this subject we look at some theoretical and social contexts for public relations and advertising and the different perspectives involved. We consider beliefs and ideology, the public sphere and public opinion, the media, rhetoric, arguments and audiences. In the section on advertising, we look at the economics, regulation and production of advertising and methods of reading its meanings. Students will have the opportunity to analyse the professional writing skills covered and develop their own writing skills.  
**Required Reading** To be advised by lecturer.

Class Contact: Three hours per week for one semester comprising one-hour lecture and one two-hour workshop.

Assessment: Essay in public relations and advertising, 30%; portfolio, 25%; client task, 30%; tutorial presentation, 15%.

APP3053 ADVANCED FICTION WRITING

Campus: St Albans

Prerequisite(s): ACP 1053 Introduction to Creative Writing and either ACP2067 Gender and Genre in Short Fiction or ACP2064 Writing and Cultural Difference, or demonstrated interest and competence in creative writing. A folio of creative writing may be requested prior to approval of enrolment.

Content: This subject focuses primarily on short story writing and further develops the writing techniques and approaches to fiction practised in first and second year creative writing subjects. The subject will revisit conventional realist writing techniques but emphasis will be placed on innovative departures from realism (such as new Gothic, magic realism, metafiction and intertextual fiction) and students will be encouraged to experiment with story length and form. Students will read a range of short fiction by Australian and international writers, several recently published novels, and a variety of extracts by contemporary writers on writing technique. Students will become familiar with a range of contemporary Australian literary magazines and will be required to submit at least one short story to a literary magazine for publication; they will also be required to read a range of book reviews from newspapers and literary magazines. At least one workshop in the subject will be conducted by a locally-based fiction writer.


Class Contact: Two 90-minute workshops each week for one semester.

Assessment: One short story, 20%; two short stories, 30% each; one book review, 20%.

APP1012 PSYCHOLOGY 1A

Campus: St Albans, Footscray Park

Prerequisite(s): Nil.

Content: This subject introduces students to the discipline of psychology, giving a general view of the social and biological influences on human behaviour while establishing a solid basis for further, detailed work in subsequent years. The subject involves psychological experimentation including application of descriptive statistics. Topics covered include perception, learning, memory and information processing, social psychology, motivation and emotion, intelligence and abilities.

Required Reading: To be advised by lecturer.

Class Contact: Five hours per week for one semester comprising three one-hour lectures and one two-hour laboratory.

Assessment: Semester examination, 50%; laboratory reports and quizzes, 50%. There is a requirement that students attend 80% of laboratory classes. (Subject to change.)

APP1013 PSYCHOLOGY 1B

Campus: St Albans, Footscray Park

Prerequisite(s): APP1012 Psychology 1A

Content: The subject aims to further introduce students to the discipline of psychology, continuing to consider the social and biological influences on human behaviour while consolidating a firm basis for more advanced, detailed work in subsequent years. The subject involves further work on psychological experimentation and application of inferential statistics. Topics covered include brain and behaviour, personality-theory and assessment, health and stress, abnormal psychology and therapy, language and the brain. Basic computer analysis is also taught.

Required Reading: To be advised by lecturer.

Class Contact: Five hours per week for one semester comprising three one-hour lectures and one two-hour laboratory.

Assessment: Semester examination, 50%; laboratory reports, tutorial work and/or essay, 50%. There is a requirement that students attend 80% of laboratory classes. Students planning to take APP2011 Psychology 2 must pass the design and analysis component of APP1013 Psychology 1B. Students who fail Design and Analysis but pass other components will be graded with (S) ungraded pass. (Subject to change.)

APP2013 PSYCHOLOGY 2A

Campus: St Albans, Footscray Park

Prerequisite(s): APP1012 Psychology 1A; APP1013 Psychology 1B and a pass in Design and Analysis assessment or a pass in APP5240 Quantitative Social Research Methods.

Content: The aim of the subject is to promote a more integrated understanding of life long development of the human being, by studying such topics as: personality development, developmental psychobiology, developmental cognition, and interpersonal interaction. There is also emphasis on methods used in psychological inquiry, including statistical computer skills.

Required Reading: To be advised by lecturer.

Class Contact: Five hours per week, including three one-hour lectures.

Assessment: Two end of semester examinations, 40%; Course work including a literature review, essay, article review and a laboratory report, 60%. In addition students will need to meet a 80% minimum requirement attendance for laboratory classes to pass this subject. Students intending to pursue psychology intensively at a postgraduate level may consider also enrolling in Qualitative and Quantitative Social Research Methods as electives.

APP2014 PSYCHOLOGY 2B

Campus: St Albans, Footscray Park

Prerequisite(s): APP2013 Psychology 2A.

Content: This subject builds on the work completed in the first semester and looks to further enhance students understanding of human life span development. Topics include the family, child development, adult development, aging and special topics such as reading development. As in semester one there is also emphasis on methods used in psychological inquiry, including statistical computer skills.

Required Reading: To be advised by lecturer.

Class Contact: Five hours per week, including three one-hour lectures.

Assessment: Two end of semester examinations, 40%; Course work including a poster paper, seminar presentation, article review and a laboratory report, 60%. In addition students will need to meet a 80% minimum requirement attendance for laboratory classes to pass this subject. Students intending to pursue psychology intensively at a postgraduate level may consider also enrolling in Qualitative and Quantitative Social Research Methods as electives.
APP3011 PSYCHOLOGY 3A

Campus St Albans, Werribee

Prerequisite(s) APP2013 Psychology 2A and APP2014 Psychology 2B.

Content The aim of the subject is to: extend the breadth and depth of students’ understanding and skills in the area of psychological research; explore particular topics at some depth, and gain an appreciation of the extent of theory and research within any given area; enhance students’ competence and sophistication in theoretical argument and evaluation; contrast and draw connections between the theoretical constructs and forms of explanation used in diverse fields of psychology; provide opportunities for students to develop their interaction skills in dynamic, group and organisational settings. There are four compulsory topics. Research Methods, Historical, descriptive, quasi-experimental and experimental design research. Computerised data handling including multivariate analysis. History and Theories The place of psychological theories and practices in twentieth century thought is pursued through lecture presentations on: positivism, behaviourism, cognitivism, psychoanalysis, recent philosophies of science, and post-modernism; complemented by case studies and a seminar program based on selected readings. Psychological Assessment The assessment of personality and abilities. Topics include test construction and administration, tests of personality, intelligence and achievement, advanced tests of personality, intelligence and achievement, advanced theory and practice of interviewing. Social Psychology An examination of various personal and situational determinants of social behaviour. Topics likely to include aggression, self and person-perception, attraction and pro-social behaviour. Two compulsory units will be offered in each semester.

Required Reading To be advised by lecturer.

Class Contact Average of four hours per week for two semesters comprising two-two-hour topics.

Assessment Each topic is equally weighted at 25%. assessment methods vary from topic to topic, but may include essays, seminar presentations, practical reports, case studies and examinations. There is an 80% attendance requirement for some units.

APP3012 PSYCHOLOGY 3B

Campus St Albans, Werribee

Prerequisites APP2013 Psychology 2A and APP2014 Psychology 2B.

Content The overall subject aims are as stated for APP3011 Psychology 3A. Psychology 3B consists of four topics, two in each semester. Topics may vary from year to year but will cover some of the following areas of psychology. Counselling Theory and Practice This topic will examine some major theories of counselling (psychodynamic, humanistic, cognitive-behavioural and family therapy) and will include experiential work on counselling practice. Group Behaviour Human groups from perspective of psychodynamic and systems theories, linking behaviour in the group to intrapersonal, interpersonal and social processes. Introduction to Neuropsychology A study of human brain-behaviour relationships focusing on the impact of brain impairment on behaviour. Topics covered include the effects of head injury, epilepsy and brain diseases on the child, adult and family. Organisations and Work Organisational behaviour, discussed in the light of theories of management and leadership, sociotechnical systems and the motivations and meanings of work. Personality Theories This topic examines a small group of personality theories in depth. Theories covered may include the psychoanalytic school, phenomenological and trait approaches, learning and social learning theories. Psychobiology Selected aspects of the psychobiology of hunger, overeating, pain, pleasure, addiction, drug effects, biological rhythms, sleeping and waking. Psychoanalysis This topic will study the writings of Sigmund Freud and include topics relevant to psychoanalysis as a method of observation, a theory and in clinical practice. Psychology of Adjustment This topic begins with a study of maladjustment and examines some core issues in ‘abnormal psychology’, followed by a study of adjustment; stress and coping in relation to ‘normal’ life-cycle problems and atypical or catastrophic events. Stress, Crisis and Trauma This topic examines, through experiential workshops, how different experiences and events are encountered and managed in everyday life or in traumatic situations. Psychological Issues in the Workplace This topic is only available to students engaged in work (paid or voluntary) and considers the wide range of work-related issues from a psychological point of view. The topic is particularly aimed at students who are not intending to become psychologists. Aboriginal People and Psychology Such topics as the psychology of unequal power relations between groups, the significance of Aboriginal spirituality, deaths in custody and family separation will be discussed amongst others. Students are made aware that questions of psychological practice cannot be meaningfully considered in isolation from the contextual questions of dispossession and genocide.

Required Reading To be advised by lecturer.

Class Contact Four hours per week for two semesters comprising two topics in each semester.

Assessment Each topic is equally weighted, 25%. Assessment methods vary from topic to topic but may include essays, seminar presentations, practical reports, case studies and examinations. There is an 80% attendance requirement for some units.

APP3015 COUNSELLING THEORY AND PRACTICE

Campus St Albans, Footscray Park

Prerequisite(s) Psychology 2A [APP 2013] & 2B (APP 2014)

Content An overview of the principles and practices of counselling from a range of paradigms. Specifically Person-Centred, Gestalt, Behavioural, Rational-Emotive, Cognitive Behavioural and Psychodynamic perspectives are explored in relation to their historical background, theoretical premises, therapeutic techniques and strengths and limitations in clinical practice. Students are also challenged to explore their own understanding of therapeutic change and to interface this personal perspective with the models presented.


Class Contact Two hours per week for one semester.

Assessment 80% attendance is required as a hurdle requirement. One 1500–2000 word essay.

APP3017 INTRODUCTION TO NEUROPSYCHOLOGY

Campus St Albans, Footscray Park

Prerequisite(s) Psychology 2A [APP 2013] & 2B (APP 2014)

Content This subject is focused on the methods and some of the knowledge base of human neuropsychology. As such it includes examples of clinical neuropsychological disorders, as well as some aspects of normal neuropsychological functioning. Topics included are: elements of neuroscience, neuropsychological syndromes, developmental neuropsychology, learning disabilities, amnesic syndromes, effects of traumatic brain injury, neuropsychology of
language, the agnosia’s, emotion, dementia, recovery of function after brain damage.

**Required Reading** Zillmer, E. A. & Spiers, M. V. 2001 *Principles of Neuropsychology* Wadsworth/Thompson Learning, Belmont, CA.

**Recommended Reading** Current journal articles and books as recommended by the lecturer.

**Class Contact** Two hour seminar per week for one semester.

**Assessment** Written short answer questions based on the discussions and material presented in the seminars (4 sets during the semester; 4 x 10% = 40%). Multiple choice exam at the end of the semester based on the various topics covered in the seminars (60%).

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**APP3018 ORGANISATIONS AND WORK**

**Campus** St Albans, Footscray Park

**Prerequisite(s)** Psychology 2A (APP 2013) & 2B (APP 2014)

**Content** In general the unit examines the relation between organisational members and their organisational context in a bidirectional relation is proposed through the way organisational members are affected by an organisation, and the way an organisation is affected by its members.


**Recommended Reading** Current journal articles and books as recommended by the lecturer.

**Class Contact** Two hours per week for one semester.

**Assessment** One essay (2000-2500 words) (40%), Multiple choice mid-semester test (20%), Multiple choice Exam at end of semester (40%).

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**APP3019 PSYCHOBIOLOGY**

**Campus** St Albans, Footscray Park

**Prerequisite(s)** Psychology 2A (APP 2013) & 2B (APP 2014)

**Content** Topics covered in the course include: Anatomy of the brain and nervous system; Neural transmission; Psychobiological research methods; Psychobiology of normal and abnormal eating and drinking behaviour; Neuroendocrine systems (hormones); Sleep, dreaming and circadian rhythms; Drug addiction and reward circuits in the brain; Psychobiology of emotions, stress and mental illness; Evolution, genetics and genetic counselling.


**Class Contact** A one hour lecture each week and a 2-hour laboratory/seminar each second week in one semester.

**Assessment** An essay plan and reference exercise (10%), One (2000 word) essay (40%), 50 item multiple choice examination (50%).

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**APP3020 PSYCHOANALYSIS**

**Campus** St Albans, Footscray Park

**Prerequisite(s)** Psychology 2A (APP 2013) & 2B (APP 2014)

**Content** Each psychoanalytic concept is illustrated by clinical examples and its use in psychology, psychiatry, cultural and women’s studies, philosophy, literary criticism, sociology, anthropology and other disciplines. Key post-Freudian contributions to psychoanalysis, as well as critical evaluations of Freudian theory and practice are discussed.

**Required Reading** Selected readings from *The Pelican Freud Library* - Student to be advised.


**Class Contact** Two hours per week for one semester.

**Assessment** An original essay (3000 words).

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**APP3021 PSYCHOLOGY OF ADJUSTMENT**

**Campus** St Albans, Footscray Park

**Prerequisite(s)** Psychology 2A (APP 2013) & 2B (APP 2014)

**Content** This subject discusses the concepts of psychopathology and diagnostic classification and includes a study of anxiety disorders, mood disorders, schizophrenia and substance dependence. This is complemented by a study of adjustment, stress and coping in relation to life events such as loss and grief, migration, and chronic illness.

**Required Reading** Current Available Abnormal Psychology Text Book – Student to be Advised.

**Recommended Reading** As advised in class.

**Class Contact** Two hours per week for one semester.

**Assessment** Multiple choice exam (50%); Written paper (2000 words) (50%). The written paper will incorporate a case study which may be based on conducting an interview (eg about experience of migration) or on researching autobiographical writings – as determined by the lecturer from each year.

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**APP3022 STRESS, CRISIS AND TRAUMA**

**Campus** St Albans, Footscray Park

**Prerequisite(s)** Psychology 2A (APP 2013) & 2B (APP 2014)

**Content** This course begins by discussing the experience and handling of stress in everyday life, and its relation to anxiety. The use of the unconscious defence mechanisms, conscious problem solving and support through social relationships is explored. The course then examines the concepts of crisis and trauma and the place of such experiences in psychological development across stages of the life cycle and in emergency situations. A psychodynamic perspective will be emphasised, with reference to cognitive behavioural approaches, and the role of different styles of psychotherapy is reviewed.


**Recommended Reading** An extensive reading list is provided from which students can select material appropriate to the essay topic they elect to address.

**Class Contact** Two hours per week for one semester.

**Assessment** One (2000 word) essay (50%) One hour examination at the end of semester (50%).

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**APP3023 PSYCHOLOGICAL ISSUES IN THE WORKPLACE**

**Campus** St Albans, Footscray Park

**Prerequisite(s)** Psychology 2A (APP 2013) & 2B (APP 2014)

**Content** This course begins by discussing the experience and handling of stress in everyday life, and its relation to anxiety. The use of the unconscious defence mechanisms, conscious problem solving and support through social relationships is explored. The course then examines the concepts of crisis and trauma and the place of such experiences in psychological development across stages of the life cycle and in emergency situations. A psychodynamic perspective will be emphasised, with reference to cognitive behavioural approaches, and the role of different styles of psychotherapy is reviewed.


**Recommended Reading** An extensive reading list is provided from which students can select material appropriate to the essay topic they elect to address.

**Class Contact** Two hours per week for one semester.

**Assessment** One (2000 word) essay (50%) One hour examination at the end of semester (50%).
characteristics and work, a recognition of mental health factors in relation to work, and the suitability of an employee for a specific occupation will be discussed. How psychological measures and techniques may be useful in choosing employees, managing change and conflict, dealing with occupational health and safety issues and maintaining employee satisfaction will also be explored.

**Required Reading**
Current Available Text Book – Student to be Advised.

**Recommended Reading**
To be advised by lecturer.

**Class Contact**
Two hours per week for one semester.

**Assessment**
2500 word essay (50%), Work Application Exercise (35%), Workshop Exercise (15%)

**APTI310 PSYCHOLOGY 1**

**Campus** St Albans

**Prerequisite(s)**
Nil

**Content**
This subject provides, at an introductory level, an integrated understanding of life-long human development, and of the family and relationship context within which development occurs. A survey of social, emotional, cognitive and personality development in infancy, childhood, adolescence, adulthood and old age will be carried out. Theories of personality/social/emotional development and theories of cognitive development will be introduced; and the relationships between cognitive and social/emotional development examined. Also an introduction to the theory of family systems and to developmental changes in the family will be given.

**Required Reading**

**Recommended Reading**


**Class Contact**
four hours per week for one semester; comprising two hours of lectures and one two-hour, midwifery focussed tutorial (Bachelor of Midwifery).

**Assessment**
Assignment/essay 40%; tutorial assessment 20%; examination 40%.

**APTI311 PSYCHOLOGY ACROSS THE LIFESPAN**

**Campus** St Albans

**Prerequisite(s)**
Nil

**Content**
Human development across the lifespan: social, emotional, personality and cognitive development, relationship contexts and the family lifecycle. Introduction to theories in psychology: psychodynamic, behavioural, cognitive, attachment/interpersonal and family systems. Concepts of health and illness. Experiences of health, illness and treatment across the lifespan. Psychological processes relevant to health and illness including pain, sleep, anxiety, grief, and coping. Developmental processes and adaptation in chronic illness and disability.

**Required Reading**

**Recommended Reading**


**Subject Hours**
Equivalent of 60 hours.

**Assessment**
Examination – 40%, Essay (1200 words.) 30%, Field study assignment – 30%.

**APTI2050 PSYCHOLOGY FOR CHINESE MEDICINE PRACTITIONERS**

**Campus** St Albans

**Prerequisite(s)**
HHT1002 Fundamentals of Chinese Medicine; or equivalent.

**Content**
An overview of: Psychoanalysis (Freud and others); Behaviorism [Skinner] and cognitive behavioral perspectives; Humanistic psychology [Maslow, Rogers]; Transpersonal psychology (Jung, Grof, Laing and others); applications of psychological theory in the context of health and disease; Traditional Eastern perspectives on mind and consciousness; Contemporary research into mind and consciousness.

**Required Reading**

**Recommended Reading**

**Subject Hours**
The equivalent of three hours per week for one semester consisting of two x one hour lectures and a one hour tutorial per week.

**Assessment**
One 1500 word essay (50%) and an examination (50%). A pass must be gained in each component of assessment.
APU3001 PSYCHOLOGICAL ISSUES

Campus City King, St Albans
Prerequisite(s) Nil

Content This subject will provide students with a basic understanding of psychological principles and their applications to health sciences. A focus on self-esteem, body image, ageing, terminal illness, disability and resulting loss or grief outcomes will be addressed from a psychological perspective. The social context of these issues, as well as their effects upon individuals, will be examined. The subject will also consider interpersonal processes in a health care context and address the issues of recognizing serious psychological distress and disturbance. The focus of this subject will be primarily directed at understanding that assists students to facilitate the health and well-being of clients. Emphasis includes greater self understanding, workplace psychology and psychology with clients.


Subject Hours Three hours per week for one semester comprising lectures and tutorials.

Assessment Essay (2000 words) (55%); tutorial journal (2000 words) (45%).

ASE1311 INTRODUCTION TO SOCIOLOGY

Campus St Albans
Prerequisite(s) Nil

Content The aim of this subject is to introduce nursing students to the major concepts in sociology. It aims to develop an awareness of social, cultural and historical contexts in which issues of health and illness impact on the practice of nursing and on the distribution and delivery of health care in Australia. It situates the examination of health care issues within an exploration of critical sociological perspectives. In particular it examines the distribution of the health and illness the nursing profession and the health care system and their relationship to social class gender ethnicity and religion as these categories are articulated in the Australian community. It also offers a sociological critique of the dominant paradigms of medical practice.

Required Reading Gernov, J. Second Opinion, Oxford University Press, Oxford, 1999. (A book of readings prepared for this subject will also form part of the Required Readings.)


Subject Hours A total of 48 hours over one semester comprising lectures, tutorials, seminars and workshops.

Assessment Continuous assessment through weekly journal entries on set questions requiring research and reflection (80%); tutorial presentation and written report (20%).

ASE1320 SOCIOLOGY OF INDIGENOUS HEALTH

Campus St Albans
Prerequisite(s) Nil

Content historical and social contours of current indigenous health disadvantage, significance of past and present policies (Protection, Assimilation, Self Determination) on indigenous communities, epidemiological profile of indigenous health in contemporary Australia (morbidity, mortality), limitations of the biomedical tradition in relation to Aboriginal and Torres Strait Islander populations, social and medical requirements for improving ‘Aboriginal’ health status, Innovative initiatives and strategies within ‘Aboriginal health policies and service provision, value of sociological approaches for understanding indigenous health issues.

Required Reading A specific Book of Readings will be prepared for this subject and made available for purchase at the University bookshop.


Subject Hours Equivalent of 40 hours

Assessment Continuous assessment through; (i) weekly journal entries on set questions requiring research and reflection 40% (ii) scenario and problem based learning exercises dealing with specific situations/issues within indigenous health 40% (iii) Tutorial presentation and written report 20%.

AXH1012 KEY DEBATES IN THE HUMANITIES AND SOCIAL SCIENCES

Campus Footscray Park, St Albans
Prerequisite(s) Completion of three years of an approved BA course

Content A review of some of the contemporary theoretical debates informing humanities and social sciences. Students are encouraged to reflect on the discourses and conventions of their disciplinary areas; to critique different epistemological and methodological approaches; to evaluate the application of these debates to their closer research area.

Required Reading To be advised by lecturer.
Class Contact Three hours per week for one semester.
Assessment Review essay, 25%; seminar paper, 25%; essay, 50%.

BA1101 ACCOUNTING FOR DECISION MAKING
Campus Footscray Park, Melton, St Albans, Sunbury, Werribee
Prerequisite(s) Nil
Content The objectives of the subject are to provide a basis for further accounting studies, yet meet the needs of students from other areas of business studies; to introduce students to basic accounting concepts and selected accounting practices; and to introduce students to the role of, and the processes involved in planning and decision making within the business environment. Topics include: introduction to the roles of accounting; management planning and decision making; accounting concepts; cash and accrual accounting; preparation of financial statements; forms of business ownership, and effect on financial statements; budgeting – an introduction; budgets; control and performance reports; analysis and interpretation; evaluation of performance; the operating cycle; short term decision making and cost behaviour; capital budgeting.
Required Reading To be advised by lecturer.
Class Contact Equivalent to three hours per week for one semester comprising two hours of lectures and one hour tutorial.
Assessment Final examination, 70%; coursework, 30%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available. Note: Any hand-held calculator without text facility may be used in examinations.

BCF9110 INTRODUCTORY COMPUTING (ENGINEERING AND SCIENCE SERVICE SUBJECT)
Campus Werribee.
Prerequisite(s) Nil.
Content This introductory subject aims to give students a broad insight into the use and application of computers in the sciences. Topics covered include: computer systems, hardware and software, word processing, spreadsheets, databases, data communications, artificial intelligence, computers as a research tool, social implications of computing.
Required Reading To be advised by lecturer.
Class Contact Three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules: or a delivery mode as approved by the Faculty of Business and Law.
Assessment Practical work, 50%; examination, 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BE01103 MICROECONOMIC PRINCIPLES
Campus Footscray Park, Melton, St Albans, Werribee
Prerequisite(s) Nil.
Content This is the first of two Economic Principles subjects. The subject aims to provide a study of basic economic principles, to develop an introduction to economic methods, and to apply these principles and methods to aspects of the Australian economy. Topics include: introduction to economics, nature, method and objectives of economics; the economising problem, relative scarcity, production possibilities, opportunity costs, nature of economic resources; the market economy, demand and supply, theory and applications, including pricing ceilings, price floors, tariffs, taxes, and the labour market; consumer theory; theory of the firm, production and costs; introduction to market structure conduct and performance; price determination in perfect and imperfect competition; workable competition and competition policy in Australia; alternative theories of the firm; market imperfections.
Required Reading To be advised by lecturer.
Class Contact Equivalent to three hours per week comprising two one-hour lectures and one one-hour tutorial/computer workshop for one semester.
Assessment Continuous assessment, 50%; examination, 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BE01104 MACROECONOMIC PRINCIPLES
Campus Footscray Park, Melton, St Albans, Sunbury, Werribee
Prerequisite(s) BE01103 Microeconomic Principles.
Content This subject aims to develop the basic macroeconomic principles applicable to the Australian economy and familiarise students with the macroeconomic environment within which Australian business operates. Topics include: the measurement of macroeconomic performance with reference to national income accounting and trade cycle analysis; the classical economic model and the Keynesian revolution; Keynesian economics and the theory of income determination; monetary influences on aggregate economic activity; inflation, unemployment; traditional demand management; the Phillips Curve revisited; interflation; incomes policies; the foreign trade sector and policies for external balance.
Required Reading To be advised by lecturer.
Class Contact Equivalent to three hours of contact per week comprising two one-hour lectures and one one-hour tutorial/computer workshop for one semester.
Assessment Continuous assessment, 50%; examination, 50%. Students are expected to satisfactorily complete each component of assessment to gain a pass in the subject. Supplementary assessment will not be available. Note: Any hand-held calculator may be used in examinations.

BE01106 BUSINESS STATISTICS
Campus Footscray Park, Sunbury, Werribee, Kuala Lumpur, Hong Kong.
Prerequisite(s) Nil.
Content This subject enables students to acquire the skills and techniques required to analyse data in a business environment. Topics include: introduction to statistics; descriptive statistics; introduction to probability and probability distributions; normal probability distribution; sampling distributions and parameter estimation; hypotheses testing; simple linear regression and correlation; time-series analysis and forecasting; index numbers. Use will be made of a statistical computer package.
Required Reading To be advised by lecturer.
BE02186 DISTRIBUTION MANAGEMENT

Campus Footscray Park St Albans, Werribee
Prerequisite(s) BEO1185 Retail Management Principles or BHO1171 Introduction to Marketing
Content This subject provides an introduction to the logistic distribution functions and an overview of the major sectors in the distribution area, in terms of being able to optimise all elements of the trade push strategy. Topics include: critical role of distribution function in marketing; channels of distribution and channel participants; logistics of integrating manufacturers, wholesalers, retailers and other service providers; customer service function in marketing.
Recommended Reading To be advised by lecturer.
Class Contact Equivalent to three hours per week comprising two one-hour lecture and one one-hour tutorial/computer workshop for one semester.
Assessment Tutorial exercises, case study presentation and participation, mid-semester test, and assignment, 40%; final examination, 60%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BE02254 STATISTICS FOR BUSINESS AND MARKETING

Campus Footscray Park, St Albans
Prerequisite(s) BEO1106 Business Statistics.
Content This subject provides an understanding of the use of statistical techniques in analysing marketing and business problems. Topics include: sampling methods and estimation of point and interval estimates; application of classical and non parametric tests; goodness of fit test; and introduction to regression and time-series analysis. Use will be made of an appropriate statistical package.
Required Reading To be advised by the lecturer.
Class Contact Equivalent to three hours per week comprising two one-hour lectures and one one-hour tutorial/computer workshop for one semester.
Assessment Examination, 60%; case studies, 40%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available. Note: Any hand-held calculator can be used in examinations.
and the management of products during the various stages of their life cycle, as well as appreciate the importance of branding and the factors affecting the branding decisions. The subject will also cover pricing, and how pricing strategies are formulated. Topics include: product concepts; product strategies; positioning strategies; market strategies; pricing strategies.


**Class Contact** Equivalent to three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

**Assessment** Assignments and/or mid-semester tests, 50%; Final examination, 50%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BHO2252 SELLING AND SALES MANAGEMENT**

**Campus** Footscray Park, Werribee, Sunbury.

**Prerequisite(s)** BHO1171 Introduction to Marketing.

**Content** Selling and Sales Management will introduce students to the principles of selling and selling theory, and the various activities involved in setting up a sales force. The responsibilities of the sales manager will also be covered. Topics include: personal selling; theories of selling; organisational buyer behaviour; communication in the sales process; preparation in the selling process; the sales presentation; handling objections; follow-up after the sale; sales force management; organizing the sales force; forecasting sales; controlling, supervising and evaluating the sales force; international sales management; ethical issues in selling.


**Class Contact** Equivalent to three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

**Assessment** Case Study, 20%; report, 30%; Final examination, 50%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BHO2254 TOURISM AND HOSPITALITY MARKETING**

**Campus** Footscray Park

**Prerequisite(s)** BHO1171 Introduction to Marketing

**Content** The purchase-decision as applied to tourism and hospitality products and services. Factors influencing the decision-making process. The role of information and communications technology in tourism and hospitality marketing. Electronic communication and distribution strategies.


**Class Contact** Three hours per week for one semester. Normally to be delivered as two hours of lectures and one hour of tutorials; or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

**Assessment** Progressive assessment (60%); Final Exam (40%).

**BHO2285 MARKETING RESEARCH**

**Campus** St Albans, Sunbury

**Prerequisite(s)** BEO1106 Business Statistics; BHO1171 Introduction to Marketing.

**Content** The subject aims to familiarise students with the applications for market research and its importance in making sound business and marketing decisions; and to complete successfully an applied research project. Topics include: introduction; the role of marketing research; research management and design; data acquisition and processing; design of surveys; marketing research and the behavioural sciences; introduction to multivariate techniques; applications of marketing research.

**Required Reading** To be advised by lecturer.

**Class Contact** Equivalent to three hours per week comprising two hours of lectures and one one-hour tutorial/computer workshop for one semester.

**Assessment** Case studies and project, 50%; final examination, 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BHO2434 CONSUMER BEHAVIOUR**

**Campus** Footscray Park

**Prerequisite(s)** BHO1171 Introduction to Marketing.

**Content** The aim of the subject is to provide a detailed study, for both consumer and organisational buying behaviour, of purchasing processes and the factors which influence them. Topics include: characteristics of individuals, groups and organisations and their influence on purchasing behaviour; consumer behaviour; organisational buying behaviour.

**Required Reading** To be advised by lecturer.

**Recommended Reading** To be advised by lecturer.

**Class Contact** Three hours per week per comprising of two hours lectures and one hour tutorial.

**Assessment** Assignments and case study, 40%; final examination and test, 60%.

**BHO3373 INTERNATIONAL MARKETING**

**Campus** Footscray Park, Sunbury, Kuala Lumpur

**Prerequisite(s)** BHO1171 Introduction to Marketing.

**Content** Marketing in an international environment; international marketing research/intelligence; market segmentation on a global scale; consumer behaviour in different countries/cultures; international product/service policy; international distribution; international promotion/advertising; pricing in international markets; marketing planning on an international scale; organisation and control of international marketing; importing and exporting.

**Required Reading** To be advised by lecturer.
FACULTY OF HEALTH, ENGINEERING AND SCIENCE

Recommended Reading

Class Contact
Equivalent to three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

Assessment
Mid-Semester Test, 10%; Major project, 30%; Class participation, 10%; Formal Examination, 50%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BHO3254 ADVANCED MARKETING RESEARCH

Campus
Footscray Park, Werribee, Sunbury, Kuala Lumpur.

Prerequisite(s)
BE02254 Statistics for Business and Marketing, BHO1171 Introduction to Marketing, BHO2285 Marketing Research.

Content
This subject is principally of an applied nature and is data and technology driven. It will focus on the use of quantitative and qualitative data in the marketing research setting to aid decision making. It will build upon the underlying concepts and techniques of gathering and analysing data for effective marketing decisions and communication of results covered in Marketing Research and will introduce more advanced methodology, concepts and technology. This unit is designed to equip students with the techniques and skills to access and analyse information relevant to the marketing research activities of both private and public enterprises.

Required Reading

Recommended Reading

Class Contact
Equivalent to three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

Assessment
Project, 50%; Final examination, 50%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available and Rudd, D.P., 1996, Introduction to Casino and Gaming Operations, Prentice-Hall, New Jersey.

Recommended Reading
An extensive reading list is handed to the students at the beginning of the semester.

Class Contact
Equivalent to three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

Assessment
Project, 30%; Case Studies, 20%; Examination, 50%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BHO3342 SERVICES MARKETING

Campus
Footscray Park, Werribee.

Prerequisite(s)
BHO1171 Introduction to Marketing.

Content
This is an advanced unit in marketing which examines the special requirements for successfully marketing services. The various activities in the services marketing mix are examined with particular reference to product development, pricing, promotion, place decisions, process design, people, performance and physical evidence. In addition, the role and importance of the service sector to the Australian economy is examined.

Required Reading

Recommended Reading
Extensive reading lists are throughout the semester.

Class Contact
Equivalent to two hours of lectures and one hour of tutorial per week.

Assessment
Tutorial paper(s), 20%; research project, 20%; final examination, 60%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BHO3435 MARKETING PLANNING AND STRATEGY

Campus
Footscray Park, Werribee, Sunbury, Kuala Lumpur.

Prerequisite(s)
Please enquire, BHO1171 Introduction to Marketing.

Content
This subject adopts a strategic approach to marketing. The tools, techniques and analyses performed in the preparation of a marketing strategy plan will be covered in detail. In addition, the subject will evaluate a number of theories developed to assist with strategy formulation. Topics covered include: trends in market strategy, portfolio analysis, competitor audits, customer audits, situation analysis, selecting strategic alternatives, the business vision and mission, implementation and control processes. The culmination of this subject may involve the preparation of a marketing plan.

Required Reading
To be advised by lecturer.

Recommended Reading

Class Contact
Equivalent to three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

Assessment
Final examination, 40%; Individual essay, 20%; Group project, 40%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BHO3473 HUMAN RELATIONS

Campus
Footscray Park.

Prerequisite(s)
Nil.

Content
Tuning in to one’s experience; communication skills; forming relationships; assertion and personal rights; influence and persuasion; dealing with emotions; personal presentation skills.

Required Reading

Recommended Reading

**Class Contact** Three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules: or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

**Assessment** Assignments, tests, and reflective journals, 100%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BMO1102 MANAGEMENT AND ORGANISATION BEHAVIOUR**

**Campus** Footscray Park, Sunbury, Werribee, Kuala Lumpur Hong Kong.

**Prerequisite(s)** Nil.

**Content** The aims of this subject are to provide students with an understanding of organisational behaviour and management theory; to assess critically the underlying values of these theories; to assess critically the utility and application of the management practices informed by these theories in the Australian context; and to analyse critically the values of Australian managers concerning behaviour in organisations and to evaluate the effectiveness of these assumptions. This subject includes the following topics: overview of the development of organisation/management theory; analysis of scientific management, human relations theory; individual behaviour/perception, personality, learning, motivation; group behaviour; group dynamics, conflict resolution, leadership, concentrating on Australian case studies and incorporating a consideration of issues of gender, ethnicity and age; applications of management/organisation theory in Australia; communication processes, and quality of work life.


**Class Contact** Three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules: or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

**Assessment** Three internal assessment tasks worth 60% of the subject assessment and a final examination worth 40% of the subject assessment. Students must successfully complete each part of the assessment to gain a pass in the subject. Supplementary assessment will not be available. Subject is equal to 15 credit points.

**BMO1110 MANAGING KNOWLEDGE**

**Campus** Footscray Park, Sunbury

**Prerequisite(s)** Nil

**Content** The subject includes the following topics: information and knowledge, sources and forms of knowledge, organizational memory and learning, developing knowledge systems, documenting knowledge, documents in electronic environments, knowledge management tools, aligning knowledge management and business strategy, knowledge enabled customer relationship management and using knowledge for competitive advantage.


**Class Contact** Equivalent to 39 hours per semester.

**Assessment** Class assignments (50%); final examination (50%).

**BMO1192 BUSINESS COMMUNICATION**

**Campus** Footscray Park, Werribee, Sunbury

**Prerequisites** Nil

**Content** The aims of this subject are to develop an understanding of the principles of effective business communication and to develop and integrate oral and written communication skills so as to enhance organisational communication ability. This subject includes the following topics: How is business communication relevant?; communication systems within organisations; the structure and organisation of business documents; the problem solving approach to effective communication; logic and reasoning in organisational communication; improving communication competence; the process of writing; business research and analysis skills; oral presentations and speeches, improving listening skills, copy editing; referencing and footnoting; non-verbal communication; the formal and human sides to decision making in meetings; cross-cultural communication.


**Recommended Reading** To be advised by lecturer.

**Class Contact** Equivalent to three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules: or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

**Assessment** Class assignments, 60%; Examination, 40%. Supplementary assessment will not be available.

**BMO2181 OPERATIONS MANAGEMENT**

**Campus** Footscray Park.

**Prerequisites** Nil

**Content** The aim of this subject is to enable business graduates to co-ordinate the operations functions effectively. This requires an understanding of both the activities involved in the operations function and the decision making techniques needed to control it. This subject includes the following topics: definition of operations function in manufacturing and service industries; the planning and control of the operations process; application of analytical methods and techniques to production.

**Required Reading** Gaither, N., 1998, Production and Operations Management, 8th edn, Duxbury Press, USA.

**Recommended Reading** To be advised by lecturer.

**Class Contact** Equivalent to three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules: or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

**Assessment** Computer workshop assignment, 20%; Research assignment, 20%; Group presentation, 10%; Final examination, 50%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.
Class Contact

Prerequisite(s) BMO1102 Management and Organisation Behaviour.

Content This subject examines the practices and functioning of organisations at micro levels, with an emphasis on how the individual interacts and impinges on such organisational settings. It is designed specifically to provide students with practical skills and a better understanding of themselves as people which will enable them to be more effective managers. The topics covered in this subject include: personality, social perception, group dynamics, communication, motivation and the management of personal behaviour such as stress management, conflict negotiation and career management strategies.


Class Contact. Three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules: or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 1.5 credit points.

Assessment Major assignment, 35%; presentation, 15%; final examination, 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BMO3200 HUMAN RESOURCE MANAGEMENT

Campus Footscray Park, Sunbury.

Prerequisite(s) BMO1102 Management and Organisation Behaviour.

Content The aim of this subject is to introduce the principal components of the human resource management function; and to examine the links between the effective utilisation of human resources and overall organisational effectiveness. This subject includes the following topics: overview of personnel and human resource management; influences on HRM function, recruitment, selection, orientation, equal employment opportunity and affirmative action, motivation, job design, performance appraisal and training and career development; total remuneration, employment relations, OHS and developments and research in Human Resource Management.

Required Reading To be advised by lecturer.


Class Contact Three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules: or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 1.5 credit points.

Assessment Group case study and report 35%; individual presentation 10%; mid-semester test 15%; final examination 40%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BMO3320 INTERPERSONAL AND ORGANISATION NEGOTIATION

Campus Footscray Park, St Albans, Sunbury.

Prerequisite(s) BMO1102 Management and Organisation Behaviour.

Content The aims of this subject are to introduce the application of experiential learning to the teaching of interpersonal and organisational negotiation; to provide a theoretical framework linking communication and negotiation in groups and organisations and to develop students’ skills in negotiation in these contexts. The subject includes the following topics: the role of a negotiator; negotiation theory, conflict and bargaining power; communication skills; preparing to negotiate; negotiating tactics; role of the third party in negotiations; negotiation skills training; critical issues in negotiation exercises and international negotiation models.

Required Reading To be advised by the subject lecturer.


Class Contact Equivalent to three hours per week for one semester comprising one two-hour lecture and one one-hour tutorial.

Assessment Seminar presentation (20%); group assignment (30%); final examination (50%). Students must satisfactorily complete each component of assessment to gain a pass in the subject. Supplementary assessment will not be available.

BMO3323 EMPLOYEE RELATIONS MANAGEMENT

Campus Footscray Park, St Albans, Sunbury.

Prerequisite(s) BMO1102 Management and Organisation Behaviour.


Required Reading To be advised by lecturer.


Class Contact Equivalent to thirty nine hours per semester. Two-one hour lectures and one one-hour workshop per week for one semester.

Assessment Case study, including 300 word reflective piece, 15%; tutorial workbook and class exercises, 10%; essay (1500–2000 words), 25%; final examination, 50%. Students must satisfactorily complete each part of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BMO3324 CONSULTING AND COUNSELLING

Campus St Albans, Sunbury.

Prerequisite(s) BMO3320 Human Resource Management.

Content The aims of this subject are to enhance students’ understanding of workplace interpersonal relationships and communication skills; to provide students with an understanding of the theory and practice of interviewing especially their interview
types, purposes and aims; to enable a student to develop knowledge and skills with regard to the interviewing and counselling processes at the individual, group and organisational level; and to assess critically the role of consulting, interviewing and counselling activities in organisations. This subject includes the following topics: the importance of interviewing for human resource managers; consulting and counselling as specific forms of interviewing; interview interpersonal and assertiveness skills; selection, induction, goal setting, appraisal, disciplinary, termination, and exit interviews; coaching and team building; the counselling and consulting roles of the human resource manager.

**Recommended Reading**

**Class Contact** Equivalent to three hours per week comprising one two-hour lecture and one one-hour tutorial/workshop for one semester.

**Assessment**
Class presentation, 20%; skills diary, 10%; video role play, 20%; final examination, 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

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**BMO3325 HUMAN RESOURCE MANAGEMENT EVALUATION**

**Campus** St Albans, Sunbury

**Prerequisite(s)** BMO3476 Training and Development.

**Content** The aims of this subject are to enhance students’ understanding of the influences that shape the strategic provision of training; to enable students to evaluate critically training systems; to develop students’ abilities to match training and development techniques methods with learning styles; and to enable students to determine and evaluate the output of training and development activities so as to demonstrate their usefulness to an organisation. This subject includes the following topics: the strategic planning approach to training within organisations; designing training for effective learning; instructional theory and behavioural considerations; objectives in adult learning and types of learning goals; evaluation of training systems; and evaluation of the training function.

**Required Reading**
To be advised by lecturer.

**Recommended Reading**

**Class Contact** Equivalent to three hours a week comprising one two-hour lecture and one one-hour tutorial/workshop for one semester.

**Assessment**
Written report, 50%; final examination, 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

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**BMO3327 ORGANISATION CHANGE AND DEVELOPMENT**

**Campus** St Albans, Sunbury

**Prerequisite(s)** BMO1102 Management and Organisation Behaviour or equivalent subject.

**Content** The aims of this subject are to develop a sound knowledge of organisations, their design, development and change; implementing change strategies and evaluating change. This subject includes the following topics: an introduction to organisation development and change; levels of organisational change – individual, group, intergroup and organisation level; managing continuous versus discontinuous change; the learning environment; managing resistance to change.

**Required Reading**

**Class Contact** Equivalent to three hours per week for one semester comprising two one-hour lectures and one-hour tutorial/workshop.

**Assessment**
Class presentation, 20%; research assignment, 30%; final examination, 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

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**BMO3328 HEALTH AND SAFETY MANAGEMENT**

**Campus** Footscray Park, City – Flinders Lane

**Prerequisite(s)** BMO1102 Management & Organisation Behaviour.


**Required Reading**

**Recommended Reading**

**Class Contact**
Thirty-nine hours for one semester, comprising two one-hour lectures and one one-hour tutorial per week.

**Assessment**
Case study analysis 50%; Final examination 50%.

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**BMO3340 HUMAN RESOURCE INFORMATION SYSTEMS**

**Campus** Footscray Park, St Albans, Sunbury

**Prerequisite(s)** BCO1101 Computer Applications; BMO3220 Human Resource Management.

**Content** The aims of this subject are to study and critically evaluate the principles and methodologies involved in the management of information about human resources; and to develop the knowledge and skills to effectively use and manage human resource information systems (HRIS). The subject includes the following topics: information technology; human resource management information requirements; features and users of HRIS’s; analysis, development, implementation and management of HRIS’s; practical use of an HRIS for entering information and writing reports; and issues in the development of HRISs for strategic purposes.

**Recommended Reading**
Class Contact | Equivalent to three hours per weeks comprising one two hour lecture, one one-hour tutorial/computer workshop for one semester.

Assessment | Practical test 10%; Research Project and Presentation 50%; Final Examination 40%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BMO3421 MANAGING THE SERVICE ORGANISATION**

Campus | Footscray Park, City – Flinders Lane
Prerequisite(s) | BMO1102 Management & Organisation Behaviour
Content | Introduction to the service industries. Service sector: changes in organisation structure. Service management: service quality; service culture; customer service. Service staff: recruitment and selection; leadership and empowerment; staff development; entrepreneurship and careers.

Required Reading | To be advised by the lecturer.


Class Contact | Thirty-nine hours for one semester, comprising one two-hour lecture and one one-hour tutorial per week.
Assessment | Individual report 15%; Presentation 10%; Group survey assignment 25%; Final examination 50%.

**BMO3422 STRATEGIC MANAGEMENT**

Campus | Footscray Park, St Albans, Sunbury, Werribee
Prerequisite(s) | BMO1102 Management and Organisation Behaviour or equivalent subject.
Content | The aims of this subject are to study normative theories and models of organisation strategy, policy and decision making, to assess critically their value to an organisation and its stakeholders; and to develop knowledge, personal skills and competencies in the application of the above approaches. This subject includes the following topics: the nature of strategic management; analyse the environment; planning direction; planning strategy; implementing strategy; global strategic management and future directions.

Required Reading | To be advised by the lecturer.

Class Contact | Equivalent to three hours per week comprising two one-hour lectures and one one-hour tutorial/workshop.
Assessment | Industry analysis, 20%; group case study, 30%; final examination, 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BMO3476 TRAINING AND DEVELOPMENT**

Campus | Footscray Park, Sunbury.
Prerequisite(s) | BMO3220 Human Resource Management
Content | The aims of this subject are to provide students with an understanding of the theory and practice of training and development; to assess critically the effectiveness of adult learning theories and training and development techniques; to enable students to develop knowledge and skills with regard to the design, management and evaluation of training and development; and to enable students to analyse the training needs of individuals and to design an appropriate development program. This subject includes the following topics: the importance of training for organisational effectiveness and individual career development; training productivity and quality of worklife; training needs analysis and skills audit and job analysis; computer assisted and managed learning; selling, training and development programs within an organisation.


Recommended Reading | An extensive reading list is handed to students at the beginning of the semester.

Class Contact | Three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules: or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

Assessment | Group presentations 20%; syndicate group project 30%; final examination 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BMO4551 HUMAN AND INDUSTRIAL RELATIONS (ENGINEERING AND SCIENCE SUBJECT)**

Campus | Footscray Park.
Prerequisite(s) | Nil.

Content | Overview of personnel and human resource management; managing and influencing people; motivation; use of power; management styles; facilitating teams; effective team communication and development; developing and using procedural and operational guidelines; current trends in people management. Major institutions in Australian industrial relations. Nature of workplace relations. The causes, functions and resolution processes of industrial conflict; changing management strategies in industrial relations.

Required Reading | To be advised by lecturer.


Class Contact | Three hours per week. Normally to be delivered as two hours of lectures and one hour of tutorials, workshops or modules: or a delivery mode as approved by the Faculty of Business and Law.

Assessment | Major assignment, 30%; final examination, 70%. Students are expected to complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**HFB1101 FUNDAMENTALS OF PARAMEDICINE 1**

Campus | St Albans, Online
Prerequisite(s) | Nil.

Content | This subject introduces the fundamentals of paramedicine. Students are introduced to the anatomical, physiological, biochemical, and pathophysiological basis of care from paramedic perspectives. Analysis of cell structures, types and groups culminates in examinations of the musculoskeletal and integumentary systems. Brief pathophysiological details from a limited range of acute and chronic conditions encountered by paramedics are also included. Topics studied in this subject may be interchangeable with those in HFB1205 Fundamentals of Paramedicine 2, HFB2101 Fundamentals of Paramedicine 2 and HFB2206 Fundamentals of Paramedicine 4. Topics will be related directly to paramedic care.

Required Reading | To be advised by Lecturer.

Website | dingog.vu.edu.au/~paramedics

Subject Hours | Four hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and computer-based self-directed learning activities.

Assessment | Online test given in two parts (20%); essay (1200 words) (30%); written examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (online test and
A student may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

**HFB1102 PARAMEDIC SCIENCES 1**

**Campus** St Albans, Online

**Prerequisite(s)** Nil

**Content** This subject is concerned with developing the students’ understanding of the sciences underpinning paramedic practice. An introduction to microbiology and pharmacology related to paramedic practice provides the theoretical explanations for specific paramedic practices taught in later subjects. Pharmacological concepts such as route of administration, distribution, metabolism and excretion of drugs are introduced and developed with specific reference to paramedic practice. Topics studied in this subject may be interchangeable with those in HFB1206 Paramedic Sciences 2, HFB2101 Paramedic Sciences 3 and HFB2207 Paramedic Sciences 4.

**Required Reading** To be advised by Lecturer.

**Website** dingo.vu.edu.au/~paramedics

**Subject Hours** Four hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and computer-based self-directed learning activities.

**Assessment** Weekly online or workbook activities including one online test [Microbiology and Pharmacology combined] (30%); media review (1000 words) [20%]; final written examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (multi-station examination and portfolio) may be re-attempted and resubmitted once only. Proficiency standard must be obtained on any re-attempted multi-station examination. Maximum possible marks to be obtained on resubmission of the portfolio will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

**HFB1204 PARAMEDIC CLINICAL 1**

**Campus** St Albans, Off Campus

**Prerequisite(s)** HFB1801 Out of Hospital Practice and HFB1802 Prehospital Clinical; or equivalents.

**Corequisite(s)** HFB1203 Paramedic Clinical 1; or equivalent.

**Content** This subject is designed to facilitate the application of theory and skills presented in HFB1203 Paramedic Practice 1. Students participate in the delivery of health care initially in laboratory settings and later in selected clinical settings. The clinical focus is on developing skills of assessment and care of people who require acute medical and surgical care. Routes of medication administration are included and the nervous, respiratory, cardiovascular, and endocrine systems are presented in greater detail.

**Required Reading** To be advised by Lecturer.

**Website** dingo.vu.edu.au/~paramedics

**Subject Hours** A minimum of ten hours per week for one semester or equivalent, comprising at least sixty hours clinical placement in the semester (hurdle requirement), lectures, tutorials, practical sessions and self-directed learning activities. Clinical placement needs to be flexible pending available clinical positions in hospitals, other medical facilities and ambulance services. Where possible, students will be notified at the beginning of the semester of their clinical arrangements.

**Assessment** To obtain an Ungraded Pass, students must successfully complete the proficiency multi-station practical and theory examination (pass/fail) [hurdle requirement]; reflective journal [maximum 1500 words]; four case studies; clinical log book; overall satisfactory appraisal from all placements [hurdle requirement]. This subject is a hurdle requirement.

**HFB1205 FUNDAMENTALS OF PARAMEDICINE 2**

**Campus** St Albans, Online

**Prerequisite(s)** HFB1101 Fundamentals of Paramedicine 1; or equivalent.

**Content** This subject continues the topics presented in HFB1101 Fundamentals of Paramedicine 1 and introduces examinations of the anatomy, physiology and pathophysiology of the nervous, respiratory, cardiovascular and endocrine systems. Function is explored in detail from discrete, interactive and holistic perspectives. Topics studied in this subject may be interchangeable with those in HFB1101 Fundamentals of Paramedicine 1, HFB2102 Fundamentals of Paramedicine 3 and HFB2206 Fundamentals of Paramedicine 4. Topics will be related directly to paramedic care of the emergency patient.

**Required Reading** To be advised by Lecturer.

**Website** dingo.vu.edu.au/~paramedics

**Subject Hours** Four hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and computer-based self-directed learning activities.

**Assessment** Online test given in two parts (20%); essay [1500 words] (30%); written examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (online test and
HFB1206 PARAMEDIC SCIENCES 2
Campus St Albans, Online
Prerequisite(s) HFB1102 Paramedic Sciences 1; or equivalent.
Content This subject presents the pharmacological aspects of dysfunction in the nervous, respiratory, cardiovascular and gastrointestinal systems and relates these aspects to paramedic practice and out-of-hospital settings. The concept of host microbe interactions in microbiology introduces students to the body’s defense systems and principles of disease and epidemiology. Topics studied in this subject may be interchangeable with those in HFB1102 Paramedic Sciences 1, HFB2103 Paramedic Sciences 3 and HFB2207 Paramedic Sciences 4. Topics will be related directly to paramedic care.
Required Reading To be advised by Lecturer.
Website dingo.vu.edu.au/~paramedics
Subject Hours Four hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and computer-based self-directed learning activities.
Assessment Weekly workbook or online activities including one online test (Microbiology and Pharmacology combined) (30%); online test (20%); final written examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (weekly activities and online test) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

HFB1801 OUT-OF-HOSPITAL PRACTICE
Campus St Albans, Off Campus
Prerequisite(s) Nil
Corequisite(s) HFB1802 Prehospital Clinical; or equivalent.
Content This subject introduces students to out-of-hospital care and the paramedic profession. The subject is divided into three areas. The first area introduces modes of paramedic and out-of-hospital emergency and non-emergency practice. Ambulance operations including written communications in paramedic, occupational health and safety issues, and an introduction to aspects of law and ethics are presented. The second area introduces paramedic diagnostics, emergency and non-emergency examinations, basic life support, and elementary management at a systems level of various medical and surgical conditions. The third area introduces trauma and its effects on the body. Throughout the subject, a problem-based learning model is used to promote development of critical thinking and individualized care is emphasized through assessment of patient priorities and care of their families.
Required Reading To be advised by Lecturer.
Website dingo.vu.edu.au/~paramedics
Subject Hours Six hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and self-directed learning activities.
Assessment Mid semester test (10%) (pass/fail) (hurdle requirement); proficiency multi-station practical and theory examination (pass/fail) (hurdle requirement) (40%); written examination (50%). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (mid semester test and multi-station examination) may be re-attempted once only. Proficiency standards must be obtained on any re-attempted mid semester test and multi-station examination. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

HFB1802 PREHOSPITAL CLINICAL
Campus St Albans, Off Campus
Prerequisite(s) Nil
Corequisite(s) HFB1801 Out of Hospital Practice; or equivalent.
Content This subject is designed to facilitate the application of theory and skills presented in HFB1801 Out of Hospital Practice. Students will participate in the delivery of health care in classroom laboratory settings and in selected clinical settings. The clinical focus is on developing skills related to assessment and care of people requiring elementary medical and surgical care, transport and prehospital attention.
Required Reading To be advised by Lecturer.
Website dingo.vu.edu.au/~paramedics
Subject Hours A minimum of ten (10) hours per week for one semester or equivalent, comprising at least forty (40) hours clinical placement in the semester (hurdle requirement), lectures, tutorials, practical sessions and self-directed learning activities. Clinical placement needs to be flexible pending available clinical positions in hospitals, other medical facilities and ambulance services. Where possible, students will be notified at the beginning of the semester of their clinical arrangements.
Assessment To obtain an Ungraded Pass, students must successfully complete the proficiency multi-station practical and theory examination (pass/fail) (hurdle requirement); reflective journal (maximum 1500 words); four case studies; clinical log book; overall satisfactory appraisal from all placements (hurdle requirement). This subject is a hurdle requirement.

HFB2100 PARAMEDIC PRACTICE 2
Campus St Albans, Off Campus
Prerequisite(s) HFB1203 Paramedic Practice 1; or equivalent.
Corequisite(s) HFB2101 Paramedic Clinical 2; or equivalent.
Content This subject continues to develop the students’ understanding and practice of paramedic emergency management. A problem-oriented approach emphasizing application of knowledge guides students in trauma management and systems, environmental emergencies, introductory aeromedical and major incident responses within specific medical specialties and out-of-hospital emergencies. Topics in applied clinical pharmacology will reinforce paramedic emergency management of patients at home and during emergency medical transport. To build individual and team skills and strengthen the awareness for individualized care, students will work with other students to provide supervised student mentoring. Topics in this subject may be interchanged with HFB1203 Paramedic Practice 1 and HFB2204 Paramedic Practice 4.
Required Reading To be advised by Lecturer.
Website dingo.vu.edu.au/~paramedics
Subject Hours Six hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and self-directed learning activities.
Assessment Proficiency multi-station practical and theory examination (pass/fail) (hurdle requirement); portfolio (50%); examination (50%). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (multi-station examination and portfolio) may be re-attempted once only. Proficiency standards must...
be obtained on any re-attempted multi-station examination. Maximum possible marks to be obtained on resubmission of any portfolio will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

**HFB2101 PARAMEDIC CLINICAL 2**

**Campus** St Albans, Off Campus  
**Prerequisite(s)** HFB1204 Paramedic Clinical 1; or equivalent.  
**Corequisite(s)** HFB2100 Paramedic Practice 2; or equivalent.  
**Content** This subject is designed to facilitate the application of theory and skills presented in HFB2100 Paramedic Practice 2. Students will participate in the delivery of health care in selected clinical settings and classroom laboratory practices. The clinical focus is on developing paramedic Assessment, competency and management of patients in a variety of circumstances.  
**Required Reading** To be advised by Lecturer.  
**Website** dingo.vu.edu.au/~paramedics  
**Subject Hours** A minimum of ten (10) hours per week for one semester or equivalent, comprising at least sixty (60) hours clinical placement in the semester (hurdle requirement), lectures, tutorials, practical sessions and self-directed learning activities. Clinical placement needs to be flexible pending available clinical positions in hospitals, other medical facilities and ambulance services. Where possible, students will be notified at the beginning of the semester of their clinical arrangements.  
**Assessment** To obtain an Ungraded Pass, students must successfully complete the proficiency multi-station practical and theory examination (pass/fail) (hurdle requirement); reflective journal (maximum 1500 words); four case studies; clinical log book; overall satisfactory appraisal from all placements (hurdle requirement). This subject is a hurdle requirement.

**HFB2102 FUNDAMENTALS OF PARAMEDICINE 3**

**Campus** St Albans, Off Campus, Online  
**Prerequisite(s)** HFB1205 Fundamentals of Paramedicine 2; or equivalent.  
**Content** The subject builds on the earlier Fundamentals of Paramedicine 1 and 2, and includes the anatomy and physiology of the lymphatic, digestive, reproductive and urinary systems to illustrate their relationships within a range of common and important acute and chronic illnesses. An overview of human nutrition, metabolism and temperature regulation is included. Topics may be interchanged with those in HFB1101 Fundamentals of Paramedicine 1, HFB1205 Fundamentals of Paramedicine 2 and HFB2206 Fundamentals of Paramedicine 4 subjects. Topics will be related directly to paramedic care of the emergency patient.  
**Required Reading** To be advised by Lecturer.  
**Website** dingo.vu.edu.au/~paramedics  
**Subject Hours** Six hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and computer-based self-directed learning activities.  
**Assessment** Online test in two parts (20%); essay (1500 words) (30%); written examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (weekly activities and clinical review) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.  

**HFB2103 PARAMEDIC SCIENCES 3**

**Campus** St Albans, Online  
**Prerequisite(s)** HFB1206 Paramedicience 2; or equivalent.  
**Content** This subject introduces students to prescribed and over-the-counter drug treatments for endocrine and immunological disorders. Diagnosis and treatment of infections and inflammatory, neoplastic, and allergic conditions link the pharmacological and microbiological components of this subject. Topics studied in this subject may be interchangeable with those in HFB1102 Paramedicience 1, HFB1206 Paramedicience 2 and HFB2207 Paramedicience 4. Topics will be related directly to paramedic care.  
**Required Reading** To be advised by Lecturer.  
**Website** dingo.vu.edu.au/~paramedics  
**Subject Hours** Four hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and computer-based self-directed learning activities.  
**Assessment** Weekly workbook or online activities including one online test (Microbiology and Pharmacology combined) (30%); clinical review (1500 words) (20%); final written examination (50%). To obtain a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (weekly activities and clinical review) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

**HFB2204 PARAMEDIC PRACTICE 3**

**Campus** St Albans, Off Campus  
**Prerequisite(s)** HFB2100 Paramedic Practice 2; or equivalent.  
**Content** This subject continues develops the students understanding and practice of paramedical emergency management. This subject has been designed to continue the study of knowledge using a problem-orientated approach. The introduction of skill development and knowledge has been specifically integrated to ensure students have an underlying knowledge and then are able to apply skills to a particular situation. The framework of this subject will be based around medical specialties and out of hospital emergencies and will be related to emergency care of the elderly, obstetrics and midwifery, neonatal care, paediatrics, abdominal and reproductive emergencies. Students will be introduced to the principles of applied clinical pharmacology in the form of paramedical guidelines, drug administration, and management of these patients in emergency situations, in the home and during emergency medical transport. Students will also be introduced to clinical instruction and mentoring. To enhance student relationships, students will work with other students providing supervised student mentoring arrangements. The integration of this approach will further facilitate the need for individualised patient care. Topics in this subject may be interchanged with HFB1203 Paramedic Practice 1 or HFB2204 Paramedic Practice 3.  
**Required Reading** To be advised by lecturer.  
**Subject Hours** Six hours per week for one semester or off campus equivalent comprising lectures, tutorials, practical sessions and discussions and/or workbooks.  
**Assessment** Examination (50%), Portfolio (50%) and mastery exams (pass/fail). Normally to obtain a pass in the subject all components of assessment must be passed. To obtain a pass in the subject all components of assessment must be successfully completed. If resubmission of the assignment or a supplementary examination is required for this subject, the total mark available for the task will be a maximum of 50%, and the overall grade for the subject will be no higher than pass.
HFB2205 PARAMEDICAL INTERNSHIP

Campus St Albans, Off Campus

Prerequisite(s) HFB2101 Paramedic Clinical 2; or equivalent.

Corequisite(s) HFB2204 Paramedic Practice 3; or equivalent.

Content This subject is designed to build on past clinical subjects and to place the student into actual paramedic practice. The subject aims to make students aware of the expectations of them in pre-hospital environments and acute medical settings. To further develop paramedic skills and an awareness of professional and ethical behaviours, students will be expected to practise primarily in the ambulance environment within selected clinical settings or in supervised classroom laboratory settings. Students will practise patient consultations and clinical practice under supervision. Clinical tutorials and case presentations will emphasize and expand upon clinically relevant material obtained during clinical placement.

Required Reading To be advised by Lecturer.

Website dingo.vu.edu.au/~paramedics

Subject Hours A minimum of ten (10) hours per week for one semester or equivalent, comprising at least sixty (60) hours clinical placement in the semester (hurdle requirement), lectures, tutorials, practical sessions and self-directed learning activities. Clinical placement needs to be flexible pending available clinical positions in hospitals, other medical facilities and ambulance services. Where possible, students will be notified at the beginning of the semester of their clinical arrangements.

Assessment To obtain an Ungraded Pass, students must successfully complete the proficiency multi-station practical and theory examination (pass/fail) (hurdle requirement), reflective journal (maximum 1500 words); four case studies; clinical log book; overall satisfactory appraisal from all placements (hurdle requirement). This subject is a hurdle requirement.

HFB2206 FUNDAMENTALS OF PARAMEDICINE 4

Campus St Albans, Off Campus, Online

Prerequisite(s) HFB2102 Fundamentals of Paramedicine 3; or equivalent.

Content This subject furthers the understanding of principles and diseases introduced in earlier paramedic subjects. Topics include the anatomy and physiology of the special senses, fluids, electrolytes and acid-base balance; and pregnancy and human development. The impacts of trauma and fluid and electrolyte imbalances on the body and the pathophysiological basis of pain and shock are presented. Fundamental differences between paediatric and adult care are highlighted. Students will study the acute paediatric onset of illnesses affecting the cerebral, respiratory, cardiovascular and other systems. Causes and prevention of paediatric trauma will be introduced and extended into its management in a prehospital setting. Emotional effects on parents, paramedics and bystanders will also be discussed. Topics may be interchangeable with those in HFB1101 Fundamentals of Paramedical Science 1, HFB1204 Fundamentals of Paramedical Science 2 and HFB2102 Fundamentals of Paramedical Science 3. Topics will be related directly to paramedic care of the emergency patient.

Required Reading To be advised by Lecturer.

Website dingo.vu.edu.au/~paramedics

Subject Hours Four hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and self-directed learning activities.

Assessment Clinical review (1500 words) (20%); essay (1500 words) (30%); final written examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (clinical review and essay) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

HFB2207 PARAMEDIC SCIENCES 4

Campus St Albans, Online

Prerequisite(s) HFB2103 Paramedic Sciences 3; or equivalent.

Content This subject develops the students’ knowledge on drugs used for CNS and psychiatric conditions and extends knowledge on fluid imbalances. Attitudes towards recreational and prescribed drugs are explored. Principles of microbiology with reference to sterilisation and disinfection, infection control and antibiotic treatment of microorganisms and nosocomial infections are linked to public health issues later in the course. Topics studied in this subject may be interchangeable with those in HFB1102 Paramedic Sciences 1, HFB1206 Paramedic Sciences 2 and HFB2103 Paramedic Sciences 3. Topics will be related directly to paramedic care of the emergency patient.

Required Reading To be advised by Lecturer.

Website dingo.vu.edu.au/~paramedics

Subject Hours Four hours per week for one semester or equivalent, comprising lectures, tutorials, practical sessions and self-directed learning activities.

Assessment Online test given in two parts (20%); essay (1500 words) (30%); written examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (clinical review and essay) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

HFB3111 PROFESSIONAL BASIS OF PARAMEDIC PRACTICE 1

Campus St Albans, Off Campus, Online

Prerequisite(s) Successful completion of Years One and Two; or equivalents.

Content This subject challenges students to analyse their present practice by examining the principles of intervention for the acutely ill or injured person. An integral part of this subject will be the development of students’ health assessment and practice skills necessary to care for the acutely ill or injured person and the adoption of those skills to improve and extend current practice. Integration of material from basic and paramedic sciences, applied clinical sciences, paramedic clinical practice and professional issues will be incorporated throughout the subject.

Required Reading To be advised by Lecturer.

Recommended Reading To be advised by Lecturer.

Website webrtc.vu.edu.au/

Subject Hours Four hours per week for one semester comprising lectures, tutorials, practicals and self-directed learning activities or online equivalents.

Assessment Portfolio (100%) To obtain at least a Pass in the subject, normally the assessment task must be attempted and passed. If the assessment item is failed, it may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HFB3122 PROFESSIONAL BASIS OF PARAMEDIC PRACTICE 2

Campus St Albans, Off Campus, Online

Prerequisite(s) Successful completion of Years One and Two; or equivalents.

Content This subject challenges students to analyse their present practice by examining the principles of intervention for the acutely ill...
or injured person. An integral part of this subject is the development of students’ understanding of electrocardiology and pharmacology, and their ability to apply principles in electrocardiology and pharmacology to their present practice. Integration of material from basic and paramedic sciences, applied clinical sciences, paramedic clinical practice and professional issues will be incorporated throughout this subject.

**Required Reading** To be advised by Lecturer.

**Recommended Reading** To be advised by Lecturer.

**Website** webct.vu.edu.au/

**Subject Hours** Four hours per week for one semester comprising lectures, tutorials, practicals and self-directed learning activities or online equivalents.

**Assessment** Portfolio including contribution to online discussions (500-800 words each) (100%). To obtain at least a Pass in the subject, normally the assessment task must be attempted and passed. If the assessment item is failed, it may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

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**HFB3211 INTEGRATION OF PARAMEDIC PRACTICE 1**

**Campus** St Albans, Off Campus, Online

**Prerequisite(s)** Successful completion of Years One and Two; or equivalents.

**Content** This subject will allow each student to extend and refine their particular area of professional paramedic practice. Students are expected to apply the principles developed in Professional Basis of Paramedic Practice 1 and 2 to their current paramedic practice and to concentrate on the professional development of their nominated area through observation, participation, discussion, and self-reflection.

**Required Reading** To be advised by Lecturer.

**Recommended Reading** To be advised by Lecturer.

**Website** webct.vu.edu.au/

**Subject Hours** Four hours per week for one semester comprising lectures, tutorials, practicals and self-directed learning activities or online equivalents.

**Assessment** Portfolio (100%). To obtain at least a Pass in the subject, normally the assessment task must be attempted and passed. If the assessment item is failed, it may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

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**HFB3222 INTEGRATION OF PARAMEDIC PRACTICE 2**

**Campus** St Albans, Off Campus, Online

**Prerequisite(s)** Restricted to students enrolled in the Bachelor of Health Science – Paramedic (1 yr Conversion) degree course.

**Content** This subject re-introduces and extends the fundamentals of paramedicine. A systems approach reinforces the anatomical, physiological, pathophysiological and pharmacological aspects of care from the perspectives of the paramedic. Applied considerations will be given to a range of adult and paediatric emergencies.

**Required Reading** To be advised by Lecturer.

**Recommended Reading** To be advised by Lecturer.

**Website** webct.vu.edu.au/

**Subject Hours** Four hours per week for one semester comprising lectures and self-directed learning activities or online equivalent.

**Assessment** Essay (1500 words) (25%); weekly online activities including contributions to online discussions (15%); final online examination of multiple-choice questions only (60%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (essay and weekly activities) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

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**HFB3301 ISSUES IN PREHOSPITAL HEALTH SERVICE DELIVERY**

**Campus** St Albans, Off Campus, Online

**Prerequisite(s)** Successful completion of Years One and Two; or equivalents.

**Content** This subject introduces students to a range of key concepts that influence health service delivery in out-of-hospital practice. Students will relate to their own perspectives and experiences in order to explore and analyse the many roles of the paramedic in health service delivery.

**Required Reading** To be advised by Lecturer.

**Recommended Reading** To be advised by Lecturer.

**Website** webct.vu.edu.au/

**Subject Hours** Three hours per week for one semester comprising lectures, tutorials, practicals and self-directed learning activities or online equivalents.

**Assessment** Portfolio (100%). To obtain at least a Pass in the subject, normally the assessment task must be attempted and passed. If the assessment item is failed, it may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

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**HFB3401 PREHOSPITAL ETHICAL AND LEGAL ISSUES**

**Campus** St Albans, Off Campus, Online

**Prerequisite(s)** Successful completion of Years One and Two; or equivalents.

**Content** This subject enables students to explore ethical and legal issues and their implications for paramedics and paramedicine. Students’ experiences will be drawn upon to demonstrate and scrutinise their responses to common situations that occur in paramedic practice which may cause ethical and legal dilemmas.

**Required Reading** To be advised by Lecturer.

**Recommended Reading** To be advised by Lecturer.

**Website** webct.vu.edu.au/

**Subject Hours** Four hours per week for one semester comprising lectures, tutorials, practicals and self-directed learning activities or online equivalents.

**Assessment** Negotiated written report or portfolio (100%). To obtain at least a Pass in the subject, normally the negotiated assessment task must be attempted and passed. If the assessment item is failed, it may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

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**HFB3501 RESEARCH IN PARAMEDIC PRACTICE**

**Campus** St Albans, Off Campus, Online

**Prerequisite(s)** Successful completion of Years One and Two; or equivalents.

**Content** This subject investigates major research considerations and focuses on facilitating the students’ abilities to critically analyse research reports. Emphasis is placed on the application of research findings to paramedic practice and ways in which applications can be facilitated.

**Required Reading** To be advised by Lecturer.

**Recommended Reading** To be advised by Lecturer.

**Website** webct.vu.edu.au/

**Subject Hours** Four hours per week for one semester comprising lectures, tutorials, practicals and self-directed learning activities or online equivalents.
Assessment  Negotiated written report or portfolio (100%). To obtain at least a Pass in the subject, normally the negotiated assessment task must be attempted and passed. If the assessment item is failed, it may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HFB3700 PARAMEDIC INSTRUCTION AND MENTORING (ELECTIVE)
(Offered in 2005 subject to demand)
Campus  St Albans, Off Campus, Online
Prerequisite(s)  Successful completion of Years One and Two; or equivalents.
Content  The subject will introduce students to the concept of clinical preceptorship, mentoring, instruction and action-based research in a paramedic focused settings. Students will plan and implement a specific activity based on a literature review and participation in professional practice. Students will be assisted to develop skills in goal and outcomes setting, data collection and participation in professional practice. Students will be assisted to research in a paramedic focused settings. Students will plan and implement a specific activity based on a literature review and participation in professional practice. Students will be assisted to develop skills in goal and outcomes setting, data collection and participation in professional practice. Students will be assisted to research in a paramedic focused settings. Students will plan and implement a specific activity based on a literature review and participation in professional practice. Students will be assisted to develop skills in goal and outcomes setting, data collection and participation in professional practice.
Required Reading  To be advised by Lecturer.
Recommended Reading  To be advised by Lecturer.
Website  webct.vu.edu.au/
Subject Hours  Three hours per week for one semester comprising lectures, tutorials, practicals and self-directed learning activities or online equivalents.
Assessment  Negotiated written report or portfolio (100%). To obtain at least a Pass in the subject, normally the negotiated assessment task must be attempted and passed. If the assessment item is failed, it may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HFB3800 PARAMEDIC PROFESSIONAL WRITING (ELECTIVE)
(Offered in 2005 subject to demand)
Campus  St Albans, Off Campus, Online
Prerequisite(s)  Successful completion of Years One and Two; or equivalents.
Content  This subject will introduce students to the practice of developing a paramedic body of knowledge through professional writing. Students will rely on their professional experience and the professional literature to produce a paper (or series of papers) suitable for submission to a refereed professional journal. Students will use publication guidelines and instructions to authors in paramedic or other suitable journals and will be assisted in the development of their journal paper(s). Emphasis will be on extending the students’ critical appraisal, synthesis and higher order cognitive skills when developing their professional writing skills.
Required Reading  To be advised by Lecturer.
Recommended Reading  To be advised by Lecturer.
Website  relevant journal sites
Subject Hours  Three hours per week for one semester comprising lectures, tutorials, practicals and self-directed learning activities or online equivalents.
Assessment  Portfolio or submission of a journal article (100%). To obtain at least a Pass in the subject, normally the negotiated assessment task must be attempted and passed. If the assessment item is failed, it may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HFB3900 EMERGENCY MEDICAL SERVICES MANAGEMENT (ELECTIVE)
Campus  St Albans, Off Campus, Online
Prerequisite(s)  Successful completion of Years One and Two; or equivalents.
Content  This subject examines two organizational areas (practices and functioning of organisations, and theories and models of organisational structure, policy and decision making) and how they relate to emergency medical services (EMS). Emphasis is on individuals within EMS organisational settings and the critical value of structure, policy and decision making to the organisation. Topics covered in the first area include personality, social perception, group dynamics, motivation and specific personal behaviour management issues such as stress management, conflict resolution and career management strategies. Topics in the second area include the nature of strategic planning, analysis of the environment, planning directions, strategy formulation and implementation, and global strategic management and future directions.
Required Reading  To be advised by Lecturer.
Recommended Reading  To be advised by Lecturer.
Website  webct.vu.edu.au/
Subject Hours  Three hours per week for one semester comprising lectures, tutorials, practicals and self-directed learning activities or online equivalents.
Assessment  Portfolio (100%). To obtain at least a Pass in the subject, normally the assessment task must be attempted and passed. If the assessment item is failed, it may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HFC1001 INTRODUCTION TO COMPUTER MEDIATED ART
Campus  St Albans
Prerequisite(s)  Nil
Content  This subject is designed to provide beginning artists with an understanding of the ways that computers can and do affect their lives. Practical experience in applications which directly and indirectly concern artists will be examined. Students will explore Macintosh Operating Systems and PC Operating Systems and related hardware, basic word processing and desktop publishing software, and basic graphic software packages. Database software packages and Zip drive software and hardware will be examined in order for students to manage their beginning image collection. Graphic file formats such as TIFF, PICT, EPS, and JPEG will be dealt with and format conversion software. Lectures will address bit-mapped and object-orientated graphics. CD ROM technology will be explored as well as data compression and storage systems. Students will be encouraged to use the computer as a tool for other subjects and as a tool for personal use. Dabbler will be the main art software package used.
Recommended Reading  Wired Magazine.
Subject Hours  Four hours per week for one semester comprising one-one hour lecture and one three-hour workshop.
Assessment  Folio, 50%; Class presentation, 25%; Electronic journal, 25%.

HFC1002 INTRODUCTION TO DRAWING AND PAINTING
Campus  St Albans
Prerequisite(s)  Nil
Content  This subject consists of the two most basic analogue arts painting and drawing and examines the relationships between the two disciplines. The subject will examine elements common to both areas such as types of supports used to draw and paint upon,
the different types of media which can be employed, and mark making. Students will use basic and common elements in the visual arts and explore them in making visual art works. In addition to exploring commonalities, this subject will also explore differences unique to each discipline. Drawing will introduce students to traditional approaches to line, mark making, shape, modelling and perspective while painting will focus upon colour, types of paint and methods of application. Lectures will draw upon historical and contemporary examples of drawing and painting, the relationships between art and gender and beginning issues in two dimensional design. Gallery visits will be included in the program as well as lectures by visual artists.


Recommended Reading: Stephenson, J. 1993. The Materials and Techniques of Painting. Thames and Hudson. NY.

Subject Hours: Four hours per week for one semester comprising one one-hour lecture and one three-hour workshop.

Assessment: Folio and support work, 80%; visual arts journal, 20%.

HFC1003 COMPUTING FOR ARTISTS

Campus: St Albans

Prerequisite(s): HFC1001 Introduction to Computer Mediated Art or equivalent.

Content: This subject builds upon the variety of computing uses available to students but in particular the art making process. Students will continue to employ word processing, basic graphic, spreadsheet, database and desktop publishing software packages, but will begin to engage with a variety of electronic drawing and painting packages in conjunction with hardware such as pressure sensitive digitising tablets. Students will also begin working with digital scanning devices and simple two-dimensional animation will be introduced. This subject addresses the needs of persons who make art using the computer as the primary agent, but does so within an emerging theoretical framework. Painter will be the main software package used.


Recommended Reading: Wired Magazine.

Subject Hours: Four hours per week for one semester comprising one one-hour lecture and three-hour workshop.

Assessment: Folio, 50%; class presentation, 25%; electronic journal, 25%.

HFC1004 LIFE DRAWING AND PAINTING

Campus: St Albans

Prerequisite(s): HFC1002 Introduction to Drawing and Painting or equivalent.

Content: This subject will continue to combine the two disciplines of drawing and painting and build upon issues examined in HFC1002 Introduction to Drawing and Painting. The traditional subject of the nude-male and female-will be used to link both areas. Working from models, students will refine visual skills, techniques and language. Drawing will emphasise the ability to judge proportions, understand the underlying skeletal and muscular structure and the placing of the figure in space. Painting will further structure the nude art work by organising the elements of colour, texture and scale. Lectures will emphasise the relationship between the ability to judge proportions, understand underlying structures, placing objects in space, colour, texture and scale and computer mediated art. Lectures will also address further issues in two dimensional design and begin to discuss colour theory as it relates to the nude and by implication, to computer mediated art. Finally, lectures will address the issue of observation as a research methodology.


Subject Hours: Four hours per week for one semester comprising one one-hour lecture and one three-hour workshop.

Assessment: Folio and support work, 80%; visual arts journal, 20%.

HFC2002 STILL LIFE DRAWING AND PAINTING

Campus: St Albans

Prerequisite(s): HFC1004 Life Drawing and Painting or equivalent.

Content: Drawing and painting will be linked in this subject through the medium of the still life. Again, students will required to judge proportions, understand underlying structures, place objects in space, colour, texture and scale in relation to compositional outcomes. Students will also be required to demonstrate the ability to control the various drawing and painting media. The still life objects will draw upon the objects of different cultures to generate and develop ideas for making visual art works and to affirm the multicultural nature of the western suburbs. Lectures will address the colour theories of Albers and Itten, and issues of perspective such as one, two and three point perspective drawing which will result in work with convincing depth of field and focus. Lectures will reiterate the relationship between these visual elements and computer mediated art as well the notion of research in the visual arts. Lectures will draw upon the use of colour, perspective and two dimensional design through the study of various historical and contemporary art works.


Subject Hours: Four hours per week for one semester comprising one one-hour lecture and one three-hour workshop.

Assessment: Folio and support work, 80%; visual arts journal, 20%.

HFC2004 EXPERIMENTAL ART

Campus: St Albans

Prerequisite(s): HFC2002 Still Life Drawing and Painting or equivalent.

Content: This subject combines the three disciplines of drawing, painting and sculpture in order to focus on non-traditional art making. Students explore two dimensional and three dimensional surface and mark making systems outside traditional wet and dry media. Conceptual aspects of visual arts are explored in conjunction with digitally and photographically generated images which draw upon advanced techniques and interpretation. Students will demonstrate processes of critical analysis to support judgements about their work. Lectures will focus on fundamental principles of three dimensional design and analysis of forms in space as well as basic joining techniques. Students will move from the production of finished work intended primarily for display against a flat surface to the concept of installation. The issue of complex compositions which select, combine and manipulate numerous images will be addressed and their relationship to computer mediated art highlighted.
HFC2005 INTRODUCTION TO VIDEO ART

Campus St Albans

Prerequisite(s) HFC2005 Computing for Artists; or equivalent.

Content This course is a studio experience introducing students to basic video and animation concepts and techniques leading to the production of experimental animation and video. Through the creation of digital presentations, this studio experience emphasises visual structure and artistic conceptualisation while examining emerging artistic media and technology. Students will investigate the interrelationships between traditional static art forms and the new technologies of animation and video art.


Subject Hours One hour lecture and a three hour tutorial per week. In addition to this, it is expected that students devote at least three hours self directed hours per week.

Assessment Folio of Photoshop images (25%); animated title sequence and credit sequence (25%); and an animation using After Effects presented as a VHS video (50%).

HFC2006 VIDEO ART

Campus St Albans

Prerequisite(s) HFC2005 Introduction to Video Art; or equivalent.

Content Through advanced projects involving digital time based media and a variety of visual technologies, students will produce refined artistic statements involving elements of video, digital media, animation and audio. Lectures will focus on advanced conceptual and experimental approaches to video and digital media related to current developments in contemporary art.


Subject Hours One hour lecture and a three hour tutorial per week. In addition to this, it is expected that students devote at least three hours self directed hours per week.

Assessment Folio of three minor installation works (50%); one major ephemeral installation situated in the university grounds (50%).

HFC3005 INSTALLATION ART

Campus St Albans

Prerequisite(s) HFC2006 Video Art and HFC2004 Experimental Art; or equivalent.

Subject Hours One hour lecture and two three hour tutorial per week. In addition to this, it is expected that students devote at least three hours self directed hours per week.

Assessment Folio of three installation works (50%); one major ephemeral installation situated in the university grounds (50%).

HFC4001 HONOURS INDIVIDUAL CREATIVE

PROJECT A

Campus St Albans

Prerequisite(s) Nil

Content The content of the student’s creative output will be outlined in the research proposal submitted by the student prior to admission into the honours course. Individual projects will be further refined through consultation between student and supervisor throughout the semester. In general it is expected that a student’s work will be developing toward a professional standard suitable for public exhibition.

Required Reading Supervisors will supply appropriate reading at the beginning of the semester.


Subject Hours Formal contact with a supervisor will be one hour per week. In addition it is expected that the student devote at least 8 self-directed hours per week to the project.
Assessment
A progress review at the end of the semester. A review panel must be satisfied that the student is making satisfactory progress in his or her practical creative work. Creative work will be submitted as a folio comprising a CD ROM and/or analogue product, depending on the student's particular project. A written progress report will be given to the student and a copy placed on file.

HHC2272 BIOMECHANICS 2

Campus City Flinders
Prerequisite(s) HHA1171 Anatomy 1, or equivalent
Content The subject aims to introduce the students to the principles of biomechanics and the terminology used. To introduce students to the measuring equipment used for biomechanics. To study basic biomechanical concepts as applied to particular structures and tissues. By the end of the subject the students should have an understanding of basic joint and tissue mechanics, and should be able to use appropriate lab equipment for measuring purposes. Content will include introduction to equipment used in the Biomechanics Laboratory and rules of use; use of video/joint centres; kinematics – linear and angular; kinetics; centre of gravity, levers, isokinetics, gait; joints (general type, structure and function); mechanics of biological tissue – bone, muscle, ligament, cartilage; EMG (2001)
Subject Hours Two hours per week equivalent for two semesters comprising lectures and laboratory workshop/tutorial sessions.
Assessment Mid-year exam 20%; tests, 20%; article synthesis & student presentation, 20%; weekly log reports, 10%; semester two final exam, 30%.
### HHD1271 CLINICAL DIAGNOSIS AND MANAGEMENT 1

<table>
<thead>
<tr>
<th>Campus</th>
<th>City Flinders</th>
<th>Prerequisite(s)</th>
<th>Nil</th>
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<tbody>
<tr>
<td><strong>Content</strong></td>
<td>This subject will enable students to develop skills in Basic History taking, and the examination and assessment of the following: mental status, skin, head and neck, eye and ear, pulmonary system, heart, peripheral vascular system, cranial nerves, abdomen, peripheral nervous system, musculoskeletal system. Training in the use of equipment employed in clinical examinations, including the: stethoscope, otoscope, ophthalmoscope, reflex hammer, tuning fork, and sphygmomanometer.</td>
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<tr>
<td><strong>Subject Hours</strong></td>
<td>Semester Two: Lecture: one hour per week; Practical: one hour per week</td>
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<tr>
<td><strong>Assessment</strong></td>
<td>Practical/viva voce: 100%</td>
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### HHD1272 CLINICAL PRACTICUM 2

<table>
<thead>
<tr>
<th>Campus</th>
<th>St Albans</th>
<th>Prerequisite(s)</th>
<th>Nil</th>
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</thead>
<tbody>
<tr>
<td><strong>Corequisite(s)</strong></td>
<td>HHA1171 Anatomy 1; HHO1171 Osteopathic Science 1; HHP1171 Physiology 1; or equivalent.</td>
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<tr>
<td><strong>Content</strong></td>
<td>The Introduction to clinical osteopathic practice, so as to make students aware of the expectations of them in clinic. Ethical and professional behaviour in the VU Osteopathic Medicine Clinic. Legal aspects of record keeping and account keeping in the clinical situation. Introduction to, and tutorials in the running of the reception at the VU Osteopathic Medicine Clinic. Introduction to the Rx Osteo practice management software package. Level two first aid certificate course, which will be held prior to the commencement of year 2.</td>
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### HHD3000 HEALTH SCIENCE 1

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<tr>
<th>Campus</th>
<th>St Albans, City King</th>
<th>Prerequisite(s)</th>
<th>Nil</th>
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</thead>
<tbody>
<tr>
<td><strong>Corequisite(s)</strong></td>
<td>HHD3110 Dermal Techniques 1; or equivalent.</td>
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<tr>
<td><strong>Content</strong></td>
<td>This subject will introduce students to theoretical aspects of anatomy, physiology, pathophysiology, microbiology, immunology, chemistry, cosmetic dermatology, cellular damage, immunity, allergy inflammation, wound repair, neoplasia and tissue responses to stress relevant to the practice of Dermal Therapy. The subject will provide important underpinning knowledge that students will require in their practical applications throughout the degree program. Knowledge to be developed will include: wound rehabilitation, skin and deeper tissue physiology, inflammatory response and associated damage, identification and biochemistry of micro-organisms, allergic response inflammation, composition of cosmetics and the range of aesthetic-based skin diseases that can be dealt with by the Dermal Therapist.</td>
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<tr>
<td><strong>Subject Hours</strong></td>
<td>Six hours per week for one semester comprising lectures, tutorials and laboratory sessions.</td>
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<tr>
<td><strong>Assessment</strong></td>
<td>Reading exercises (20%); research assignment (1500 words) (20%); final examination (60%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (research assignment) may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.</td>
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</table>
considered. This will lead into related pharmacology and toxicology areas and will include studies of the effects of various drugs and chemicals, both topical and oral, on the skin. Students will also be expected to investigate the effects on the skin of various cosmetic ingredients especially those in chemical peels and herbal preparations. In addition to this, students will be expected to become familiar with the Therapeutic Goods Act and other legislation relevant to their practical work.

**Required Reading**

**Recommended Reading**

**Subject Hours**
Three hours per week for one semester comprising lectures, tutorials and laboratory sessions.

**Assessment**
- Essay (2000 words) (25%);
- reading exercises (20%);
- class presentation (25%); final examination (30%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (essay) may be re-attempted and resubmission once only. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%.
- Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

**HHD3100 CLINICAL PRACTICE 1**

**Campus**
St Albans, City King

**Prerequisite(s)**
- HHD3000 Health Science 1; HHD3110 Dermal Techniques 1; or equivalents.

**Content**
In this subject students will be introduced to theoretical aspects of specific medical and therapeutic procedures. Medical and aesthetic reasons for a range of approaches will be outlined. Students will observe a representative range of face and body areas and will include studies of the effects of various drugs and chemicals, both topical and oral, on the skin. Students will also be expected to investigate the effects on the skin of various cosmetic ingredients especially those in chemical peels and herbal preparations. In addition to this, students will be expected to become familiar with the Therapeutic Goods Act and other legislation relevant to their practical work.

**Required Reading**

**Recommended Reading**

**Subject Hours**
Three hours per week for one semester comprising lectures, tutorials and laboratory sessions.

**Assessment**
- Essay (2000 words) (25%); reading exercises (20%);
- class presentation (25%); final examination (30%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (essay) may be re-attempted and resubmission once only. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%.
- Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

**HHD3102 RESEARCH PERSPECTIVES AND PRACTICES**

**Campus**
City King, St. Albans

**Prerequisite(s)**
- Nil

**Corequisite(s)**
- HHD3002 Health Science 2; HHD3220 Dermal Techniques 2; or equivalents.

**Content**
This subject provides an introductory research focus for health care professionals with an emphasis on quantitative and qualitative paradigms. A primary aim of this introductory research subject will be to facilitate the students’ ability to critically analyse and evaluate selected research literature relating to health sciences with particular reference to the safe practice of applied dermal therapies. An introduction to the experimental method, basic quantitative and qualitative analytical techniques, case study reports, report writing and ethics in research will also be covered.

**Required Reading**

**Recommended Reading**

**Subject Hours**
Two hours of lectures per week for one semester.

**Assessment**
- Assignment (1500 words) (50%); written examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%.
- Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

**HHD3103 NUTRITION FOR HEALTH AND WELL-BEING**

**Campus**
City King, St. Albans

**Prerequisite(s)**
Students must have satisfactorily completed the first two semesters of coursework for the degree Bachelor of Health Science – Applied Dermal Therapies; or equivalent.

**Content**
The aim of this subject is to build upon student’s knowledge of nutrition as presented in the Diploma program and consolidated through ‘work experience’. In this subject students will further their understanding of the role of various vitamins/minerals, food groups and nutritional supplements in healing and well-being. Students will also study the beneficial and deleterious effects of various diets on skin health and the relationship of nutrition and eating patterns to conditions such as anorexia, bulimia and obesity. Attention will be given to factors which promote nutritional well-being, conditions in which it is appropriate to provide nutritional advice to clients and the identification of situations in which it is necessary to refer clients to specialist health practitioners. Topics include carbohydrates, lipids, proteins, energy balance, water soluble vitamins, fat soluble vitamins, minerals, dieting, how to recognize the relationship between dieting disorders and skin

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**Subject Hours**
Four hours per week for one semester comprising lectures, tutorials and laboratory sessions.

**Assessment**
- Class exercises (20%); case study assignment (2000 words) (30%); final examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (case study assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

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**Assessment**
- Class exercises (20%); case study assignment (2000 words) (30%); final examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (case study assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

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**Assessment**
- Class exercises (20%); case study assignment (2000 words) (30%); final examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (case study assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.
conditions, referrals, nutritional status of skin, discussions on popular diets' advantages & disadvantages, client management of specific dieting needs in respect of vitamins and minerals, the effects of excessive amounts of vitamins and minerals.


**Subject Hours** Two hours per week or equivalent for one semester comprising lectures and tutorials.

**Assessment** One written assignment [1500 words] [40%]; one 2-hour examination [60%]. To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

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**HHD3104 GRADUATING SEMINAR**

**Campus** City King, St Albans

**Prerequisite(s)** Students must have satisfactorily completed the first two semesters of coursework for the degree Bachelor of Health Science – Clinical Dermal Therapies; or equivalent.

**Content** Graduating Seminar is an integrating subject for the course and has been designed to provide students with a framework to link the main elements of the course. The subject enables students to enhance their critical thinking and integration of knowledge. Particular emphases will be given to 1) ethical and legal issues and dilemmas confronting dermal therapies and 2) networking with medical practitioners and other health professionals including referrals and approaches to establishing effective and safe working relationships. 3) Presenting research findings and clinical results. Particular emphases will be given to 1) ethical and legal issues and dilemmas confronting dermal therapies and 2) networking with medical practitioners and other health professionals including referrals and approaches to establishing effective and safe working relationships.


**Subject Hours** Three hours per week for one semester comprising two hours of lectures and one hour seminar.

**Assessment** Public presentation [50%]; research article [2500 words] [40%]; ethics examination 10%. To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (research article and examination) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%.

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**HHD3200 CLINICAL PRACTICE 2**

**Campus** City King, St Albans

**Prerequisite(s)** HHD3100 Clinical Practice 1; or equivalent.

**Content** In this subject students will begin to focus on a specific range of medical and therapeutic procedures with a view to specialisation of peri-operative support using clinical dermal therapy techniques. Students will be expected to work in a case management context under the supervision of a selected practitioner through a mentoring arrangement. Topics include: further procedures in cosmetic surgery; complications of cosmetic procedures; using ultrasound and micro currents; diathermy, pressotherapy for post liposuction; radio therapy with cosmetic procedures; advanced massages and electrical equipment techniques appropriate to the needs of the client/patient. In addition, this subject will introduce the concepts of treatment sequencing, planning and reappraisals with special emphasis on peri-operative services.


**Subject Hours** Three hours per week for one semester comprising lectures, tutorials and laboratory sessions.

**Assessment** Micro-dermabrasion exam [50%]; practical lymphatic exam [50%]. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

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**HHD3110 DERMAL TECHNIQUES 1**

**Campus** St Albans, City King

**Prerequisite(s)** Nil

**Corequisite(s)** HHD3000 Health Science 1 or equivalent.

**Content** The subject will enhance the student’s knowledge and practice of advanced manual and machine dermal therapies. This will consist of micro-dermabrasion and clinical lymphatic drainage. The basis of these therapies will be investigated and recommended regimes established. Skills will be developed in the application of advanced massages and electrical equipment techniques appropriate to the needs of the client/patient. In addition, this subject will introduce the concepts of treatment sequencing, planning and reappraisals with special emphasis on peri-operative services.


**Subject Hours** Three hours per week for one semester comprising lectures, tutorials and laboratory sessions.

**Assessment** Micro-dermabrasion exam [50%]; practical lymphatic exam [50%]. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.
HHD3220 DERMAL TECHNIQUES 2

Campus St Albans, City King

Prerequisite(s) HHD3110 Dermal Techniques 1; or equivalent.

Content This subject will build on the knowledge and techniques covered in Dermal Techniques 1. Students will undertake study in the basics of low and high level laser together with practical applications. This will include an introduction to laser and light physics, laser & light tissue interaction, laser safety, an introduction to intense pulsed light, resurfacing lasers, light based treatment of hair, practical aspects of light based hair removal, light based treatment of vascular & pigmented lesions and tattoos, photo rejuvenation, practical aspects of photo rejuvenation and light based treatment of acne. A number of case studies based on treatment planning, skin analysis, acne management, scar management and ageing skin management will also be presented. They will apply a range of techniques and treatment regimes to affect successful outcomes for the client. Students will also be expected to consider the psychological and physiological needs of the client.


Subject Hours Three hours per week for one semester comprising lectures, tutorials and laboratory sessions.

Assessment Practical assessment (50%); assignment (2000 words) (30%); final examination (20%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (essay) may be re-attempted and resubmitted only once. Maximum possible marks to be obtained on any re-attempt and resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

HHD3174 CLINICAL DIAGNOSIS & MANAGEMENT 4 CLINICAL DIAGNOSIS AND MANAGEMENT 3

Campus City Flinders

Prerequisite(s) HHD1271 Clinical Diagnosis 1; HHD2200 Clinical Diagnosis and Management 2 or equivalent.

Content The content will be divided between lectures and practical classes and will focus on the in musculoskeletal system in Semester One. The lectures will introduce the student to a diagnostic algorithm for the examination of the musculoskeletal system. It will then focus on the common radiological, laboratory and special diagnostic procedures used to explore the musculoskeletal system. The student will also be introduced to the specific characteristics of a number of common tumours affecting the skeletal system. M Tutorials: Following an introduction to pain and how it manifests in the musculoskeletal system, the student will be taught how to conduct a detailed examination the shoulder, elbow, wrist and hand, hip and buttock, knee, ankle and foot joints.


HHD3330 DERMAL TECHNIQUES 3

Campus St Albans or City King.

Prerequisite(s) HHD3220 Dermal Techniques 2; or equivalent.

Content This subject builds on techniques covered in Dermal Techniques 1 and 2 by further developing treatment planning and sequencing as part of case management. This will occur through the on-going evaluation of treatments in progress and final evaluation of completed treatments. Practical application of advanced dermal treatment techniques will be undertaken. Specific techniques used to support the clinical procedures will be used this includes micro-pigmentation and further practice in laser therapy, micro-dermabrasion, specialised lymphatic drainage massage and chemical peels. Further study into the pharmacology of topical medication and use of drugs/chemicals, cosmetic chemistry, factor of penetration, active ingredients, and the action of skin peels. Students will be expected to work with a specialised practitioner as a mentor to support this arrangement.


Subject Hours Three hours per week for one semester comprising lectures, tutorials and laboratory.

Assessment Presentation of case study, 60%; final exam, 40%. Students must satisfactorily complete each component of the assessment in order to gain a pass in the subject.

HHE0001 INTRODUCTION TO NURSING MANAGEMENT

Campus St Albans

Prerequisite(s) Nil

Content This elective subject is designed to enable students to examine critically organisation theory and the principles of management, and their application to nursing administration and clinical practice. Theoretical concepts include: bureaucracy, leadership, styles of management, decision-making, supervision, conflict management, and social change. The subject will also provide opportunities for students to develop knowledge and skills in the application of a range of management techniques. These include time management, problem-solving/evaluation, strategic planning, human and material resource management, quality of nursing care.

Recommened Reading To be advised.

Contact Hours 39 hours

Assessment To be advised.

HHE1673 HEALTH ASSESSMENT

Campus St Albans

Prerequisite(s) Nil

Content This unit is designed to utilise scientific foundations to describe normal physical, psychosocial, cultural tendencies and health concerns of individuals throughout the life cycle. From this basis of health of the individual the student will begin to develop the
ability to discriminate abnormal assessment findings. In the discrimination of abnormal physical assessment findings a decision making process is employed and during this process the clinical significance of the abnormality is determined.

**Recommended Reading** To be advised.

**Contact Hours** 39 hours

**Assessment** Practical Examination 50%; Case Study 50%.

### HHE1684 EMERGENCY NURSING CARE IN THE COMMUNITY

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** The student will utilise knowledge of human anatomy, physiology and pathophysiology to critically evaluate a situation and safely and effectively administer emergency nursing care to an individual(s) in the community. The student's physical assessment skills will be further developed to include discrimination of clinical signs and symptoms arising from trauma and medical emergencies.


**Subject Hours** Thirty-nine hours, comprising twentyseven hours of workshop and twelve hours of fieldwork during one semester.

**Assessment** Written examination 100% Practical Examination – satisfactory/unsatisfactory; fieldwork – satisfactory/unsatisfactory. Students must achieve a pass grade in each of the above components to pass the subject.

### HHF1124 ISSUES AND TRENDS IN HEALTH

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** Origin and development of the Australian health care system. The development of 19th century tradition of charity in the previous units in the course. The main focus will be on the application of knowledge and skills in the provision of health care to clients/patients in a diversity of locations/settings. Students will


**Subject Hours** 39 hours comprising lectures, tutorials, and class participations.

**Assessment** Tutorial presentation and written assignment, 30%; assignment 70%.

### HHF1125 KNOWLEDGE AND NURSING KNOWLEDGE

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** This subject encourages students to examine critically some of the theories and ideologies that influence the development of the various kinds of knowledge, including nursing knowledge. This will include an examination of a number of significant theories about human nature – Christianity, Existentialism, Freud, Lorenz, Plato, Skinner and some oppositional theories and challenges from Feminist, non-Western and other ‘marginalised’ areas. Further, a number of concepts found in the history and philosophy of science will be considered – Newtonian thought, Kuhn and paradigms, and the bio-medical model as the conceptual foundation of modern medicine. Feminist ways of knowing and analysis of the Relationship between knowledge and social and cultural factors, including theories of discourse and power will be offered. The subject encourages students to generate and apply nursing knowledge through a process of theory analysis and development. In particular, a number of theories and models, for example, those of King, Orem, Levine, Leininger, and Rogers will be analysed and the potential for nursing innovation explored.


**Subject Hours** 39 hours, comprising lectures, tutorials, and informal discussion/study workshops.

**Assessment** Tutorial presentation 50%; essay 50%. Students must pass all components of the assessment in order to aim a pass in this subject.

### HHF1243 NURSING STUDIES (2) CLINICAL PROJECT

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** This is a culminating unit which aims to provide students with an opportunity to develop and apply their learning acquired in the previous units in the course. The main focus will be on the application of knowledge and skills in the provision of health care to clients/patients in a diversity of locations/settings. Students will

**HHG5125 THEORETICAL FOUNDATIONS OF HEALING**

**Campus** City Flinders, St Albans

**Prerequisite(s)** Nil

**Corequisite(s)** HHG5115 Philosophical Concepts of Healing or equivalent

**Content** This subject provides a theoretical foundation for the study of a range of approaches to health and healing examined during the course. Students will critically appraise the increasing body of literature and research related to the environmental, social, psychological and spiritual dimensions of health and illness. The subject provides a framework that unifies the diverse approaches to healing. The principles informing the understanding of innate healing tendencies and the interconnection of mind and body are studied.

**Required Reading** To be advised by lecturer.


**Subject Hours** Three hours per week for one semester comprising lectures and tutorials.

**Assessment** Two 2500 word assignments; 50% each.

**HHH2301 UNIVERSITY SKILLS FOR NATURAL MEDICINE STUDENTS**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** Library orientation and tour; the study of and in an holistic paradigm; introduction to computer skills for Natural Medicine studies; introduction to Internet skills for Natural Medicine studies; Natural Medicine study skills; research skills; introduction to active learning, self-managed learning, problem solving and problem based learning; and the development of mentor relationships for learning in practice based subjects.


**Subject Hours** A minimum of thirty-six (36) hours for one semester comprising lectures, seminars and self-managed learning activities.

**Assessment** Student portfolio (hurdle requirement); two written assignments (50% each). To obtain a Pass in the subject, a pass must be gained in each of the two written assignments. Failed assessment items (assignments) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

**HHH2302 IRIDOLOGY 1**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** The study of ‘Iris diagnosis’. Iridology will be explored covering the observation of the structural, functional and chemical changes in the body, rather than the diagnosis of specific diseases. Iridology will be covered from the perspective of the science and art of reading the ‘big picture’, in terms of constitutional strengths, the vitality of key body systems, and the degree of encumbrance. The classes will include practical work where students will examine the iris with their own suitable hand held equipment, so that the theoretical understanding is consistently accompanied by practical experience.


**Subject Hours** A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.
HHH2303 BODYWORK THERAPIES 1

Campus St Albans
Prerequisite(s) Nil

Content This subject will introduce the student to basic concepts involved in all aspects of bodywork including the, musculoskeletal system and will include practitioner/client relationship skills involved in performing relaxation massage and remedial massage.


Subject Hours A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment One practical assessment (50%); one written assignment (50%); one personal reflections journal (hurdle requirement). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment items (practical assessment and written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH2304 AROMATHERAPY

Campus St Albans
Prerequisite(s) Nil

Content A basic introduction to a full range of aromatherapy oils, their uses, contra indications.


Subject Hours A minimum of thirty-six (36) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment One written assignment (40%); one case study (30%); practical assessment (30%). To obtain a Pass in the subject, a pass must be gained in each component of assessment. Failed assessment items (written assignment, case study, and practical Assessment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any reattempt or resubmission will be 50%.

HHH3100 BODYWORK THERAPIES 2

Campus St Albans
Prerequisite(s) HHH2303 Bodywork Therapies 1, or equivalent.

Content This subject will expand the students knowledge involved in all aspects of bodywork and will include practitioner/client relationship, knowledge and skills involved in performing various bodywork therapies, including Reflexology, Alexander Technique, Bowen Therapy, Feldenkrais, Shiatsu, Relaxation Massage and Remedial Massage.


Subject Hours A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment One personal reflections journal (hurdle requirement); one practical assessment (50%); one written assignment (50%). To obtain a Pass in the subject, a pass must be gained in each component of assessment. Failed assessment items (practical assessment and written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any reattempt or resubmission will be 50%.

HHH3101 IRIDOTHERAPY 2

Campus St Albans
Prerequisite(s) HHH2302 Iridology I, or equivalent.

Content The study of ‘Iris diagnosis’. The classes will include practical work with a view to fine-tuning treatment strategies for the patients, where students will examine the iris with suitable hand held equipment, so that the theoretical understanding is consistently accompanied by practical experience. The individual iris is examined as an aid to practical assessment of the individual patient condition, which is most important to assist the patient in, developing his or her own self-care strategies for achieving health. Emotional and mental health patterns will be explored using the Rayid method of iris diagnosis. Practical work in the classroom as well as outside the classroom is encouraged. The practical nature of iris analysis is consistently explored.

Recommended Reading

Subject Hours
A minimum of thirty-six (36) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment
Practical assessment (35%); written assignment (35%); logbook of at least three case studies (30%) [hurdle requirement]. To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment items (practical assessment and written assignment) may be re-attempted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH3102 HOMOEOPATHY 1

Campus St Albans
Prerequisite(s) Nil

Content
The Homoeopathic Materia Medica is introduced through an exploration of the components of a homoeopathic 'drug picture', including 'subjective symptom' 'modality' 'sphere of action', 'QPRS symptom', 'causation', 'generality', 'characteristic particular' and 'keynote'. This is illustrated through a detailed study of the simplexes most frequently used in Homoeopathic practice. Following on from this is an introduction to the structure of the Periodic Table; 'cations' and 'anions', synthetic prescribing, and a differentiation of remedy groups on the table in terms of common psychological characteristics and sequential patterning. An in-depth study of some of the most significant of these groups such as The Calcareae, The Phosphoricums, The Magnesiums, and The Sulphurics, with reference to a wide variety of sources.

Required Reading

Recommended Reading

Subject Hours
A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment
One written assignment (50%); one examination (50%). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment item (written assignment) may be re-attempted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

HHH3103 PHYTOTHERAPEUTIC MATERIA MEDICA 1

Campus St Albans
Prerequisite(s) Nil

Content
This subject will introduce students to phytochemical and pharmacological principles as they relate to Herbal Medicines. In addition this subject will enable students to identify fresh plant materials used in herbal medicine. Teaching will focus on the nature of the bioactive principles and their interaction with human pathological processes where possible. Emphasis will be on the pharmacognosy and pharmacology of herbal medicine as it pertains to clinical practice. The subject will cover the main classes of Phytochemical compounds. Attention will also be given to the toxicity of plants.

Required Reading

Recommended Reading

Subject Hours
A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment
Individual presentation (20%) [hurdle requirement]; written assignment (40%); theory examination (40%). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment item (written assignment) may be re-attempted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

HHH3104 NATUROPATHIC AND HOMOEOPATHIC CLINICALS

Campus St Albans, City Flinders, Off Campus
Prerequisite(s) Nil

Content
During this semester students will commence their clinical training in the role of a assistant practitioner under the guidance of a clinical supervisor and will be required to fulfill all aspects of case taking and assessment, planning a treatment strategy and providing and dispensing the treatment, including all aspects of Naturopathic and Homoeopathic principles as it applies to the individual patient. Students will be required to complete 50% of their total hours with a naturopath or homoeopath currently in practice in Melbourne.
HHH3200 HOMEOPATHY 2

Campus St Albans

Prerequisite(s) HHH3102 Homeopathy 1; or equivalent.


Subject Hours A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment Clinical participation (10%) (hurdle requirement); written assignment (50%); written examination (50%). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment item (written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

HHH3201 NUTRICEUTICALS

Campus St Albans

Prerequisite(s) Nil

Content This subject will introduce the student to basic concepts of nutriceuticals, their actions and interaction and availability of products, when to prescribe to clients and how they should be used in conjunction with a balanced diet.


Recommended Reading Australian Journal of Nutrition and Dietetics. Other journals and web sites to be advised by Lecturers.

Subject Hours A minimum of twenty-four (24) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment One written assignment (40%); one theory assessment (40%); one case study (20%). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment items (written assignment and theory Assessment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

HHH3202 COUNSELLING SKILLS FOR NATURAL MEDICINE PRACTITIONERS

Campus St Albans

Prerequisite(s) Nil

Content An introduction to the role of the counsellor and relationship between the client and practitioner. The following theories will be covered; Psychoanalytic, Alderian, Existential, Person Centred, Gestalt, Reality, Behavioural, Cognitive, Family Systems, Ego State Therapies, as well as meditation, relaxation therapy; and Ethical and Legal issues of Counselling.


Subject Hours A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.
Assessment Class participation (25%); written theory assignment (50%); reflective journal (25%) (hurdle requirement). To obtain a Pass in the subject, a pass must be gained in class participation activities and the written theory assignment. Failed assessment items (practical assessment and written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH3203 DEVELOPING PHARMACOLOGICAL UNDERSTANDING IN NATURAL MEDICINE PRACTICE

Campus St Albans, Online
Prerequisite(s) Nil
Content Interactions and contraindications of drug use; understanding Pharmacology and its interactions upon the systems of the body; the effect of drugs on adults and children by following the general principles of absorption, distribution, metabolism and elimination.
Recommended Reading To be advised by Lecturer.
Subject Hours A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.
Assessment Seminar presentation (20%); two written assignments (40% each). To obtain a Pass in the subject, a pass must be gained for both written assignments. Failed assessment items (written assignments) may be re-attempted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH3204 VIBRATIONAL MEDICINE

Campus St Albans
Prerequisite(s) Nil
Content This subject will introduce the student to basic concepts of vibrational medicine including, Therapeutic touch, colour, sound, meditation, homoeopathy and flower essences. Energy healing, the role of intuition, spirituality and all other areas related to the metaphysical.


Assessment A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.
Assessment One combined oral and practical examination (50%) (hurdle requirement); one written assignment (50%). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment items (practical examination and written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH3205 NATUROPATHIC AND HOMOEOPATHIC INTERNSHIP 1

Campus St Albans, City Flinders
Prerequisite(s) HHH3104 Naturopathic and Homoeopathic Clinicals; or equivalent.
Content During this semester students will assume the role of the practitioner under the guidance of a clinical supervisor and will be required to fulfil all aspects of case taking and Assessment, planning a treatment strategy and providing and dispensing the treatment, including all aspects of Naturopathic and Homoeopathic principles as it applies to the individual patient. Students will be required to complete 50% of their hours with a naturopathy or homoeopathy currently in practice in Melbourne.
Subject Hours A minimum of ninety-six (96) hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).
Assessment Placement comprising successful completion of required 96 clinical hours (pass/fail) (hurdle requirement); overall satisfactory report[s] from clinical placement[s] (pass/fail) (hurdle requirement); student portfolio (hurdle requirement); combined practical and oral herbal dispensing and recognition exam (50%) (hurdle requirement); combined practical and oral homoeopathic assessment (50%). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Any failed assessment item will need to be discussed in the first instance with the Subject Coordinator. This subject is a hurdle requirement.
HHH4100 HOMOEOPATHY 3

Campus St Albans and Off Campus

Prerequisite(s) University Skills for Natural Medicine students, Irridology I, Bodywork Therapies, I Vibrational Medicine I, Nutriceuticals

Content An in-depth study of the Homoeopathic Materia Medica with a focus on the major mineral remedy groups, including groups such as The Siliciums, The Ferrums, The Zinccums, The Mercuries, The Nitricums, and The Acids. These groups are studied by drawing on a wide variety of sources and with reference to psychological characteristics common to the groups according to their position on the periodic table. Some of the major plant and animal remedies are introduced.


Subject Hours The equivalence of 60 Hours for one semester

Assessment One written assignment 50%, One examination 50%. A pass must be gained for each component of the assessment.

HHH4101 RESEARCH METHODS

Campus St Albans

Prerequisite(s) Nil

Content Evaluation of the health care professionals role in the research process and the significance of research to health care. Discussion of the different trends and issues within health care research. Exploration of legal and ethical considerations in research. Examination of qualitative and quantitative research methods. Consideration of how research ideas/questions can be generated and which research methodology may be appropriate. Data analysis and Computation.


Subject Hours A minimum of twenty-four (24) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment Seminar presentation with staff and peer assessment (50%); written assignment (50%). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment item (written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH4102 ETHICAL AND LEGAL ISSUES

Campus St Albans, Online

Prerequisite(s) Nil

Content The Law and Health Care, Introduction to Ethics, Ethics and Law in Health practice, Consent, Negligence, Foregoing and withdrawing treatment, Dying and the law, Mental Health, Confidentiality, Employment: legal and ethical obligations, Resource allocation.


Recommended Reading To be advised by Lecturer.

Subject Hours A minimum of forty-eight (48) hours for one semester comprising lectures, seminars and self-managed learning activities.

Assessment Online or face-to-face presentation and interactive discussion (40%); written assignment (60%). Failed assessment item (written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH4103 PHYTOTHERAPEUTIC MATERIA MEDICA 2

Campus St Albans

Prerequisite(s) HHH3103 Phytotherapeutic Materia Medica I; or equivalent.

Content This subject will continue the study of the Western Materia Medica. Medicinal plants will be studied in the context of their actions on the different organs and physiological systems. The subject will examine in detail the phytochemistry, history, ecology, actions, indications, combinations, contra-indications and toxicity of the principal western herbal medicines used in clinical practice.


**Subject Hours** A minimum of forty-eight [48] hours for one semester comprising lectures, seminars and self-managed learning activities.

**Assessment** One written assignment (50%); written examination (50%). To obtain aPass in the subject, a pass must be gained for each component of assessment. Failed assessment items [written assignment] may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

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**HHH4104 NATUROPATHIC AND HOMEOPATHIC CLINICAL INTERNSHIP 2**

**Campus** St Alburns, City Flinders

**Prerequisites** HHH3205 Naturopathic and Homeopathic Clinical Internship I; or equivalent.

**Content** During this semester students will assume the role of the practitioner under the guidance of a clinical supervisor and will be required to fulfil all aspects of history taking and Assessment, planning a treatment strategy and providing and dispensing the treatment, including all aspects of Naturopathic and Homeopathic principles as it applies to the individual patient.


**Subject Hours** A minimum of ninety-six [96] hours in an approved clinical setting normally spread across one entire semester [hurdle requirement].

**Assessment** Placement comprising successful completion of required 96 clinical hours [pass/fail] [hurdle requirement]; overall satisfactory reports from clinical placement [pass/fail] [hurdle requirement]; student portfolio [hurdle requirement]; combined practical and oral herbal dispensing and recognition exam (50%) [hurdle requirement]; combined practical and oral homeopathic assessment (50%). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Any failed assessment item will need to be discussed in the first instance with the Subject Co-ordinator.

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**HHH4200 ADVANCED NUTRITIONAL UNDERSTANDING**

**Campus** St Alburns

**Prerequisites** Nil

**Content** To introduce student to the advanced concepts of nutrition reviewing the building blocks, proteins, carbohydrates, fats, fibre, water, vitamins, minerals, trace elements and accessory nutrients. Daily requirements, deficiency states and nutritional supplementation


**Subject Hours** A minimum of thirty-six [36] hours for one semester comprising lectures, seminars and self-managed learning activities.

**Assessment** One written assignment (50%); written examination (50%). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment items [written assignment] may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.
HHH4202 PROFESSIONAL ISSUES

**Campus** St Albans

**Prerequisites** Nil

**Content** Community Health: legal aid, relationship counselling, child guidance, rehabilitation services, fertility clinics, practice management: employer responsibilities, record keeping, taxation, workers compensation, legal and civil requirements; Department of Health regulations: local council regulations, licensing of premises, public risk, the practitioners responsibilities; the bioethical requirements of the profession as they relate to research and to professional practice; Naturopathy and Homoeopathic organisations: professional accreditation, Health funds and indemnity insurance, peer group associations Australian and international, the current status of Naturpaphy and Homoeopathy; Naturpathy and Homoeopathy Health politics; an update on recent research into Naturpaphy and Homoeopathy; Naturpathy and Homoeopathy Health education and promotion; alternative perspective’s on Health care: osteopathy, chiropractic, physiotherapy… TCM, Aboriginal medical herbalism; working in various clinical settings.

**Required Reading** To be advised by Guest Lecturers.

**Subject Hours** A minimum of thirty-six (36) hours for one semester comprising lectures, seminars and self-managed learning activities.

**Assessment** Class presentation (40%); public presentation report (20%); written assignment (40%). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment item (written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH4203 CURRENT RESEARCH TRENDS IN NATURAL MEDICINE

**Campus** St Albans

**Prerequisites** HHH4104 Research Methods; or equivalent.

**Content** This subject will include the reviewing of the latest research literature into all aspects of naturopathy and homoeopathy, including nutrition, herals medicine, iridology, body-mind connection in healing, new developments in homoeopathy. Students will review this research enabling them to have an understanding of the development within their industry and its impact on their patients and other medical disciplines.

**Required Reading** To be advised by Lecturer.

**Subject Hours** A minimum of thirty-six (36) hours for one semester comprising lectures, seminars and self-managed learning activities.

**Assessment** One written assignment (50%); class presentation (50%). To obtain a Pass in the subject, a pass must be gained for each component of assessment. Failed assessment item (written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH4204 NATUROPATHIC AND HOMEOPATHIC CLINICAL INTERNSHIP 3

**Campus** St Albans, City Flinders, Off Campus

**Prerequisite(s)** HHH4104 Naturopathic & Homoeopathic Clinical Internship II.

**Content** During this semester students will assume the role of the practitioner under the guidance of a clinical supervisor and will be required to fulfil all aspects of case taking and assessment, planning a treatment strategy and providing and dispensing the treatment, including all aspects of Naturopathic and Homoeopathic principles as it applies to the individual patient. Students can also have the opportunity to complete their internships in approved overseas settings at their own expense, in India, Nepal and in Europe.


**Subject Hours** A minimum of one hundred and twenty (120) hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).

**Assessment** Placement comprising successful completion of required 120 clinical hours (pass/fail) (hurdle requirement); overall satisfactory report(s) from clinical placement(s) (pass/fail) (hurdle requirement); student portfolio (hurdle requirement); combined practical and oral herbal dispensing and recognition exam (50%) (hurdle requirement); combined practical and oral homeopathic assessment (50%). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Any failed assessment item will need to be discussed in the first instance with the Subject Co-ordinator.

HHI2001 ADVANCED FORMULAS AND STRATEGIES

**Campus** St Albans

**Prerequisite(s)** HHT1005 Chinese Medical Diagnosis and Pathogenesis; HHT1007 Chinese Pharmacopoeia; or equivalents.

**Corequisite(s)** HHT2001 Fundamental Herbal Formulas; HHT1003 Chinese Medical Diagnosis and Pathogenesis 2; RHM2575 Phytopharmaceutics; or equivalents.

**Content** Additional major formulas, including modifications, scheduled herbs and supplementary pharmacopoeia studies; historical development of formula studies; the traditional formulary methods; formulas and treatment methods; the categories of formulas; the composition and changes of formulae, the types of formulas; usage of formulas. The categories of the traditional formulary (external dispersing, clear heat, downward evaporating, tonifying, harmonising, internal warming, restraining essence, Shen calming, orifice opening, wind managing, dryness managing, Qi regulating, blood regulating, damp dispelling, phlegm dispelling, enrich yin, moisten dryness, reducing food stagnation, parasite expelling).


**Recommended Reading** To be advised by Lecturer.

**Subject Hours** Three hours per week or equivalent for two semesters comprising lectures, seminars and self-managed learning activities.

**Assessment** Semester One: End-of-semester examination (50%). Semester Two: End-of-semester examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Where any end-of-semester examination is failed, a supplementary examination will be offered. The maximum possible mark on any supplementary examination will be 50%. This subject is a hurdle requirement.
HHI3020 CHINESE MEDICINE CLINICAL PRACTICE – HERB MAJOR 4

**Campus** St Albans

**Prerequisite(s)** HHI2001 Advanced Formulas and Strategies; HHI3010 Chinese Medicine Clinical Practice – Herb Major 3; or equivalents.

**Corequisite(s)** HHT3001 Internal Medicine; or equivalent.

**Content** During the first week of semester, students will seminars to orient students to this level of the clinical program, to revisit expectations required of them as learners, to review standard operating procedures of the clinical dispensary as preparation for continuation of the clinical program. Reinforce their understanding of the role of acupuncture as an adjunct to their herbal skills and knowledge. Advanced dispensary work: ordering stock in consultation with the supervisor, cost appreciation and prescription accounting.


**Recommended Reading** To be advised by Lecturer.

**Subject Hours** A minimum of seventy-eight (78) hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).

**Assessment** Combined practical and oral examination (hurdle requirement); placement comprising successful completion of required 78 clinical hours (pass/fail) (hurdle requirement) and overall satisfactory report(s) from clinical placement(s) (pass/fail) (hurdle requirement). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Any failed assessment item will need to be discussed in the first instance with the Subject Co-ordinator.

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HHI4001 MAJOR CLASSICS – SHANG HAN LUN AND WEN BING

**Campus** St Albans

**Prerequisite(s)** HHI2001 Advanced Formulas and Strategies; or equivalent.

**Content** Shang Han Lun and Wen Bing: The difference between Shang Han and Wen Bing; Zhang Zhong Jing, meaning of Shang Han and Six Channels, the three Yang patterns, the three Yin patterns; concept of Bion Zeng Lun Zhi; warm disease concepts: Ye Tian Shi and Wu Ju Tong; San Jiao, aetiology and outbreak, differentiation, changes through the systems, treatments. Character writing and pronunciation of Chinese medical terminology.


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HHI4002 CHINESE MEDICAL GYNECOLOGY: HERBAL MEDICINE

**Campus** St Albans

**Prerequisite(s)** HHT3001 Internal Medicine; or equivalent.

**Corequisite(s)** HHT3202 Chinese Medical Specialties; or equivalent.

**Content** This subject extends the generic theory subject Chinese Medical Specialties with particular reference to the use of Chinese herbs for gynaecological disorders including menstrual, vaginal, gestational and post-partum disorders. Specific case studies and selected Matero Medica will also be emphasized. This subject is conducted in conjunction with HHT3202 Chinese Medical Specialties.


**Recommended Reading** To be advised by Lecturer.

**Subject Hours** Three hours or equivalent per week for one semester comprising lectures and self-managed learning activities.

**Assessment** One assignment (1000 words) (50%); final examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

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HHI4003 CHINESE MEDICAL PEDIATRICS AND DERMATOLOGY: HERBAL MEDICINE

**Campus** St Albans

**Prerequisite(s)** HHT 3001 Internal Medicine; or equivalent.

**Corequisite(s)** HHT4001 Case Conferencing and Clinical Issues; HHT3202 Chinese Medical Specialties; or equivalent.

**Content** This subject extends the generic theory subject Chinese medical specialties with particular reference to the use of Chinese herbs for pediatric and dermatological conditions. This subject is conducted in conjunction with HHT4001 Case Conferencing and Clinical Issues.


**Recommended Reading** To be advised by Lecturer.

**Subject Hours** Two hours per week or equivalent for one semester comprising lectures and self-managed learning activities.
Assessment: One assignment (1500 words) (60%); one final examination (40%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

Recommended Reading


Recommended Reading

To be advised by Lecturer.

Subject Hours

Thirty (30) hours or equivalent for one semester comprising lectures and self-managed learning activities. This subject will be delivered in its entirety before the mid-semester break to allow students to undertake their final clinical internship in China. Assessment: One class presentation (50%); one written assignment (1000 words) (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHI4010 CHINESE MEDICINE CLINICAL INTERNSHIP 1 – HERB MAJOR

Campus: St Albans

Prerequisite(s): HHI3020 Chinese Medicine Clinical Practice – Herb Major 4; HHT3001 Internal Medicine; or equivalents.

Content: During the first week of semester, students will attend two 2-hour seminars to orientate them to the final level of the clinical program; to review expectations of them in the clinic; to review student ethics and professional behaviour; to review standard operating procedures of the clinical dispensary and system in use for public consultations, in preparation for continuation of the clinical program. Students undertake their final year clinical placement as the Intern Practitioner in approved settings. Much of the placement will be undertaken in the on-campus student clinic. This subject must be completed before off shore clinical placements can be approved. Internship Practitioner: The student practitioner is expected to conduct themselves in a professional manner, working under the supervision of a qualified Chinese medicine practitioner. Skills required of the intern practitioner: take all case notes, define diagnosis, herbs and main formulas that the prescription could be based upon, define treatment principles and where appropriate apply acupuncture. The intern practitioner works independently and assumes full responsibility for the conduct of each consultation, and production of a final prescription. The supervising practitioner is accessed as required. Prescriptions must be approved by the supervising practitioner as suitable and safe to dispense for each client consulted, before being processed in the dispensary.

Internship Mentor: Final year students are to work closely with junior students to assist them in the development of clinical skills.

Dispensary supervision: Final year students will spend part of their time as supervisor in the dispensary. This will give the Internship practitioner the opportunity to provide mentorship for junior students and assume responsibility for the running of the practice dispensary. While the supervising practitioner has overall authority, the Internship practitioner must liaise with the supervising practitioner for all financial decisions and must report discipline issues. During the mentorship process, the Intern practitioner has the authority to ensure HPU policies and procedures are followed.

Required Reading

students to assist them develop clinical skills. Dispensary supervision: Final year students will spend part of their time as supervisor in the dispensary. This will give the Internship practitioner the opportunity to provide mentorship for junior students and assume responsibility for the running of the practice dispensary. While the supervising practitioner has overall authority, the Internship practitioner must liaise with the supervising practitioner for all financial decisions and must report discipline issues. During the mentorship process, the Internship practitioner has the authority to ensure HPU policies and procedures are followed. Internship observer status: Clinical hours may also be obtained if a student ‘observes’ clinical practice with a recognized Herbalist with a minimum of 10 years clinical practice (15–20 minimum recommended). The nature of the ‘observation’ will need to extend to internshipship status for approval to be granted.

**Required Reading**


**Recommended Reading**

To be advised by lecturer.

**Subject Hours**

A minimum of two hundred and eight (208) hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).

**Assessment**

Finaldispensarypractical examination [10%] (hurdle requirement); final combined practical and oral examination [50%] (hurdle requirement); placement [40%] comprising successful completion of required 208 clinical hours [pass/fail] (hurdle requirement) and overall satisfactory report[s] from clinical placement[s] [pass/fail] (hurdle requirement). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Any failed assessment item will need to be discussed in the first instance with the Subject Co-ordinator.

**HHK3020 CHINESE MEDICINE CLINICAL PRACTICE – ACUPUNCTURE MAJOR 4**

**Campus** St Albans, Off Campus

**Prerequisite(s)**

HHK3010 Chinese Medicine Clinical Practice – Acupuncture Major 3; HHT2005 Chinese Medicine Asepsis and Sterilization; HHT2006 Acupuncture Needling; or equivalents.

**Content**

Topics include: maxibustion, cupping, gua sha, needle manipulation techniques, the appropriateness of applying other therapeutic methods such as electro-acupuncture, laser therapy, muscle energy testing approaches, Tui Na, shi liao and other micro-systems approaches. Assist practitioner as requested: provide preliminary diagnostic report to the practitioner; carry out therapeutic procedures. Students undertake undertake clinical education in a variety of settings both on and Off Campus Supervision is provided by Victoria University appointed clinical educators, in the Health Practice Unit or other approved locations, with or with approved acupuncture practitioners in their private clinics. Herbal formulae prescriptions (prepared and powered extracts).

**Required Reading**


**Recommended Reading**

To be advised by Lecturer.

**Subject Hours**

A minimum of seventy-eight (78) hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).

**Assessment**

Combinedpractical and oral examination (hurdle requirement); placement comprising successful completion of required 78 clinical hours [pass/fail] (hurdle requirement) and overall satisfactory report[s] from clinical placement[s] [pass/fail] (hurdle requirement) and. To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Any failed assessment item will need to be discussed in the first instance with the Subject Co-ordinator.

**HHK4001 TREATMENT OF MUSCULO-SKELETAL DISORDERS**

**Campus** St Albans

**Prerequisite(s)**

HHK2003 Musculo-skeletal assessment Skills for Acupuncture; HHK3002 Acupuncture Therapeutic Applications; or equivalents.

**Content**

This subject consolidates theory and practical skills learnt in previous subjects and applies these to the context of specific musculo-skeletal and neurological disorders. The material covered will include the further applications of acupuncture in Wei and Bi syndrome, Zhong Feng; the diagnosis and treatment of specific musculo-skeletal conditions; the application of external herbal preparations; movement exercises specific to particular musculo-skeletal conditions; the protocols and application of electro-acupuncture, point injection therapy, laser therapy, magnet therapy, Tui Na, cupping, moxibustion and Gua Sha as these apply to musculo-skeletal disorders; the treatment and management of sporting injuries.

**Required Reading**


**Recommended Reading**

To be advised by Lecturer.

**Subject Hours**

Three hours per week or equivalent for one semester comprising seminars, workshops and self-managed learning activities.

**Assessment**

One practical exam [40%] (hurdle requirement); one class presentation [20%]; one written examination [40%]. To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item [practical examination] may be re-attempted once only. Proficiency standard must be obtained on any re-attempted practical examination. Maximum possible marks to be obtained on any re-attempt will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

**HHK4002 CHINESE MEDICAL SPECIALTIES: ACUPUNCTURE**

**Campus** St Albans

**Prerequisite(s)**

HHK3002 Acupuncture Therapeutic Applications; HHT3001 Internal Medicine; or equivalents.

**Corequisite(s)**

HHT3202 Chinese Medical Specialties; or equivalent.

**Content**

In these specialist areas of study, attention will be given to enhancing the student’s theoretical knowledge concerning diagnosis, CM aetiology, treatment principles and management strategies. Ways of selecting acupuncture points, needle techniques
and manipulation, application of moxibustion techniques and the role of electro-acupuncture are considered.


**Recommended Reading** To be advised by Lecturer.

**Subject Hours** Three hours per week or equivalent for one semester comprising lectures, seminars and self-managed learning activities.

**Assessment** Assignment [1000 words] (45%); theory examination (55%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

**HHK4004 SCHOOLS OF THOUGHT IN ACUPUNCTURE**

**Campus** St Albans

**Prerequisite(s)** HHK3002 Acupuncture and Therapeutic Applications; or equivalent.

**Content** Detailed explorations of a broad range of schools of thought from classical and contemporary Chinese medical literature, other Oriental and Western applications. Emphasis will be given to understanding these approaches and their relevance in a contemporary Australian clinical setting. Areas such as Zhi wu liu zhi, ling gui ba fa, yuan wu bi lei, the application of the ‘Ghost Points’ and Japanese approaches are addressed. Special emphasis is given to clinical concerns connected to the notion of two important Chinese medical ideas: dispersing xie Qi and supporting zheng Qi.


**Recommended Reading** To be advised by Lecturer.

**Subject Hours** Twenty (20) hours or equivalent for one semester comprising lectures, seminars and self-managed learning activities. This subject will be delivered in its entirety before the mid-semester break to allow students to undertake their final clinical internship in China.

**Assessment** One class presentation (50%); one assignment (1000 words) (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

**HHK4020 CHINESE MEDICINE CLINICAL INTERNSHIP 2 – ACUPUNCTURE MAJOR**

**Campus** St Albans, Off Campus

**Prerequisite(s)** HHK4010 Chinese Medicine Clinical Internship 1 – Acupuncture Major; or equivalent.

**Content** During the first two weeks of semester the students will be required to attend a 2-hour seminar to detail the expectations in this subject, Revisit ethical professional issues, and Review clinical operating procedures. Students practice as interns under the supervision of approved clinical teachers. Students are required to spend time in at least five of the Victoria University clinical locations in Melbourne to gain broad clinical experience and be guided by a variety of clinical teachers. Skills required: Advanced acupuncture and prepared Chinese medicine theory, needling and Tui Na therapy, excellent interpersonal skills, and a professional attitude and presentation. Practical skills to be developed and assessed: monitoring the consultation process, ability to give supervisors a CM diagnosis of the client they are treating, ability to locate and needle accurately acupuncture points appropriate to the clients needs. Be able to use, and know when to use, moxa, cupping, Gua Sha, point injection therapy, dermal hammer, laser, electric stimulator and prepared Chinese medicine. Assess the client’s needs for ongoing treatment, and be able to communicate with the client their course of treatment. Liaise and work effectively with clinical teachers and mentor students in the clinic.

Recommended Reading To be advised by Lecturer.  
**Subject Hours** A minimum of two hundred and eight (208) hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).  
**Assessment** Final combined clinical practical and oral examination (hurdle requirement); placement comprising successful completion of required 208 clinical hours [pass/fail] (hurdle requirement) and overall satisfactory report(s) from clinical placement(s) [pass/fail] (hurdle requirement). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Any failed assessment item will need to be discussed in the first instance with the Subject Co-ordinator.  

**HHM1419 BIOMETRY 1**  
**Campus** City Flinders  
**Prerequisite(s)** Nil  
**Content** The subject aims to introduce students to concepts of academic research, data collection and statistical analysis, with particular reference to clinical research. The students will acquire a basic knowledge of research procedures in the clinical field, and will develop an understanding of how data is acquired, correlated and analysed. Statistical skills will be further developed in HHM2429 Biometry 2. Content will include: Introduction to statistics. Knowledge acquisition, science and research. Research logic and language. Social research and statistics. Report Writing. Introduction to research ethics. Displaying data. Descriptive statistics. Correlation. Prediction. Multiple regression. Introduction to hypothesis testing.  
**Subject Hours** Two hours per week for one semester comprising one one-hour lecture and one one-hour workshop or equivalent.  
**Assessment** Written examination, 100%.  

**HHM2429 BIOMETRY 2**  
**Campus** City Flinders  
**Prerequisite(s)** HHM1419 Biometry 1; or equivalent.  
**Content** The subject aims to consolidate and further develop skills gained in HHM1419 Biometry 1, and to further investigate methods of statistical analysis. At the completion of the subjects students should have a broad understanding of quantitative and qualitative research methods, and should be able to collate and display data using a variety of basic techniques. Content will include: Concepts for inferential statistics. Hypothesis testing. Hypothesis testing with means. Introduction to T tests. T tests for dependent means. Power and effect size. Chi square tests. Introduction to T tests. T tests for dependent means. T tests for independent means. Power and effect size. Chi square tests. Qualitative research methods. Introduction to Qualitative Methods.  

**HHM3439 BIOMETRY 3**  
**Campus** City Flinders  
**Prerequisite(s)** HHM2429 Biometry 2; or equivalent.  
**Content** The aims of the subject are to further develop and consolidate knowledge gained in HHM1419 Biometry 1 and HHM2429 Biometry 2. To study more advanced statistical procedures used in clinical research. At the completion of the subject students should be able to use a variety of more advanced techniques for data collation and display, and should have a thorough understanding of clinical research methodology. Content will include: Revision of correlational statistics. Revision of basic inferential statistics. Analysis of variance. Selected non-parametric techniques. Advanced statistical procedures. Overview of statistics in the research process.  
**Subject Hours** Two hours per week for one semester comprising one one-hour lecture and one one-hour workshop or equivalent.  
**Assessment** Written exam, 30%; computer test, 20%; assignment [2500 words], 50%.  

**HMM6000 NURSING ENQUIRY AND KNOWLEDGE**  
**Campus** St Albans  
**Prerequisite(s)** Nil  
**Content** This subject is designed to encourage students to examine critically some of the theories and ideologies that influence the development of the various kinds of knowledge. The subject also aims to enable students to generate and apply nursing knowledge through the process of theory analysis and development. Topics covered in this subject include: intellectual culture – contextual knowledge; the nature, creation and legitimation of knowledge; nursing ‘knowledge’; nursing theories and their application to practice; future directions.  
**Required Reading** To be advised by lecturer.  

**Subject Hours** Three hours per week for one semester comprising a variety of teaching strategies including lectures, tutorials and workshops.

**Assessment** Paper and seminar presentation, 50%; written paper, 50%.

### HHN0011 PHILOSOPHICAL CONCEPTS IN NATURAL MEDICINE

**Campus** St Albans, Online

**Prerequisite(s)** Nil

**Content** Approaches to healing throughout the world are embedded in notions of reality, truth, and values about health and illness. The subject explores the philosophies that underpin the major traditions of health and healing. Students are provided with the opportunity to explore and critically appraise the various philosophies. Areas of inquiry will include the general principles of: Oriental Medicine: Chinese and Japanese healing; Ayurveda and Yoga: Indian and Pranic healing; Naturopathy: European natural therapy; Australian Aboriginal healing; Western healing; Shamanistic healing practices. The opportunity to explore the philosophies underlying health and healing practices will provide a broad foundation for the study of the sensory and cognitive healing approaches in the course.


**Subject Hours** A minimum of thirty-six [36] hours for one semester comprising lectures, tutorials seminars and self-managed learning.

**Assessment** Personal reflective journal (hurdle requirement): class participation/group work [20%]; written assignment [2000 words] (80%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (written assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

### HHN0012 ETHICAL AND LEGAL ISSUES

**Campus** St Albans, Online

**Prerequisite(s)** Nil

**Content** The Law and Health Care, Introduction to Ethics, Ethics and Law in Health practice, Consent, Negligence, Foregoing and withdrawing treatment, Dying and the law, Mental health, Confidentiality, Employment: legal and ethical obligations, Resource allocation.


**Recommended Reading**

**Recommended Reading** Recommended Reading that includes textbooks, Journals and Web sites will be posted in the Subject Information folder within the coursework section of this subject prior to the commencement of each semester.

**Subject Hours** A minimum of seventy-two [72] hours for one semester comprising lectures, tutorials, seminars and self-managed learning.

**Assessment** Online or face-to-face presentation (30%); written assignment (70%).

### HHN0013 RESEARCH SKILLS

**Campus** St Albans, Online

**Prerequisite(s)** Nil

**Content** Evaluation of the health care professionals role in the research process and the significance of research to health care. Discussion of the different trends and issues within health care research. Exploration of legal and ethical considerations in research. Examination of qualitative and quantitative research methods. Consideration of how research ideas/questions can be generated and which research methodology may be appropriate. Data analysis and Computation. Prepare a literature based research proposal.

UNDERGRADUATE SUBJECT DETAILS

HHN0021 COUNSELLING SKILLS FOR NATURAL MEDICINE PRACTITIONERS

Campus St Albans, Off Campus.
Prerequisite(s) Nil
Content An introduction to the role of the counsellor and relationship between the client and practitioner. The following theories will be covered: Psychoanalytic, Alderian, Existential, Person Centred, Gestalt, Reality, Behavioral, Cognitive, Family systems, Ego State Therapies, as well as meditation, relaxation therapy. Ethical and legal issues of counselling.

HHN0022 PROFESSIONAL WRITING IN NATURAL MEDICINE

Campus St Albans, Online
Prerequisite(s) Nil
Content Preparing a journal article based on the evaluation of professional literature in the field of Natural Medicine. Discuss and understand the process of writing a paper(s). Understand library research skills, professional writing and reading skills.

HHN0023 RESEARCH PROJECT

Campus St Albans, Online
Prerequisite(s) Nil
Content Students will undertake a task based on professional experience and/or the professional literature and produce a research project. Students are expected to prepare a proposal. On acceptance of the proposal students are expected to develop this into a research project. Interaction between facilitator and students is essential.


Subject Hours A minimum of one hundred and thirty-two (132) hours for one semester comprising lectures, tutorials, seminars and self-managed learning.

Assessment Class presentation of project (20%); minor research project assignment (5000 words) (80%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHO1171 OSTEOPATHIC SCIENCE 1

Campus St Albans

Prerequisite(s) Nil

Content This subject aims to introduce student to the osteopathic principles both theoretical and based on research. Development of the conceptual framework of osteopathy and an understanding of osteopathic philosophy. Consideration of the functioning of the individual as a whole. ART and the application of this principle to patient care. Somatic dysfunction and its diagnosis including barrier principles. Contraindications of to osteopathic care both absolute and relative. Students will develop palpatory skills and awareness of tissue characteristics both normal and abnormal. Research and presentation skills relating to the published literature on palpation will be developed. Basic soft tissue techniques applicable to the tissues of the musculoskeletal system. The use of leverages to induce motion within these tissues. Emphasis is placed on palpatory skills, osteopathic articular and soft tissue techniques, surface anatomy and tissue awareness. The palpation and technique components will augment and reinforce anatomy learnt in the subject Anatomy 1.


Subject Hours Seven hours per week for two semesters: one hour lecture-History & Principles; two-hour workshop – Osteopathic Palpation; four hours workshop [2 x Osteopathic Techniquc]. Osteopathic science 1 is a clinically oriented subject and as a consequence material presented within clinical pracicum 1 tutorials will necessarily augment and support Osteopathic Science 1 course content.

Assessment Written examination – History & Principles; Assignment – History & Principles [2000 words]; Presentation & paper critiques – Palpation; Practical Examinations – Palpation and Osteopathic Technique. Students must gain a mandatory pass, or better, in all components of assessment before they can be awarded an overall pass within the subject title: Osteopathic Science 1. Please note that Osteopathic Science 1 is a two semester subject. First semester passing grades will appear on academic transcripts as X. First semester fail grades will appear as N1 or N2, and will be amended if the subject is passed in entirety at the end of the academic year. First semester grades will be published by the lecturer after the meeting of the examination board.

HHO2173 OSTEOPATHIC SCIENCE 3

Campus City Flinders

Prerequisite(s) HHO1171 Osteopathic Science 1; or equivalent.

Content The subject aims: To consolidate and develop knowledge gained in HHO1171 Osteopathic Science 1. To introduce high velocity, low amplitude thrust techniques for various joints. To further explore osteopathic history and principles. To introduce the students to the full osteopathic physical examination. At the completion of the subject students should have a thorough understanding of osteopathic history and principles. They should be able to carry out an osteopathic physical examination, and should be capable of carrying out the major high velocity low amplitude thrust techniques. Content will include: Further development of osteopathic manual soft tissue skills and the uses of leverage in treatment regimes. Continued refinement of treatment approaches to effect reflex and structural changes in muscle. Introduction to the use of high velocity thrust techniques applicable to the spine. Stress is placed upon observation prior to palpation and the need to recognise the anatomical relationships of one region of the body to others. Osteopathic principles and application of forces to all soft tissues and joints of the body to normalise mechanics. Contraindications to the use of osteopathic techniques. Application and interpretation of tests and protocols relating to patient safety. Further exploration of the principles and practice of osteopathic medicine as distinct from allopathic and other complementary therapies. The role of the Autonomic Nervous System in relation to osteopathic principles and practice. Introduction to the osteopathic case history, examination and tissue diagnosis. Joint biomechanics – classification, structure and function, abnormalities of function, biomechanics of individual joints. The vertebral unit & somatic dysfunction. Spinal biomechanics – development of normal curves, assessment of posture both static and dynamic, assessment of occupational stresses. Peripheral Joint biomechanics, assessment, diagnosis and integrated treatment approach to peripheral joint lesions. Abnormal spinal mechanics – congenital, acquired, developmental. Clinical assessment of joints of the spine and extremities. Review of surface and regional anatomy. High Velocity Low Amplitude techniques to the spine.


Subject Hours Six hours per week or equivalent for two semesters comprising lectures, laboratory/practical workshops and tutorials. Osteopathic Science 2 is a clinically oriented subject and as a consequence material presented within Clinical Practicum 2 tutorials will necessarily augment and support Osteopathic Science 2 subject content.

Assessment Written examination, practical assessment. A pass in all components must be achieved before an overall pass can be awarded.

HHO3175 OSTEOPATHIC SCIENCE 5
Campus City Flinders
Prerequisite(s) HHO2173 Osteopathic Science 3; or equivalent.
Content The aim of the subject is to further develop and consolidate skills learned in HHO1171 and HHO2549 Osteopathic Science 1 and 2. To introduce concepts of osteopathic patient management. To introduce muscle energy techniques for axial and peripheral areas. At the completion of the subject students will be able to apply high velocity low amplitude thrust techniques and muscle energy techniques to all major areas of the body, and will be able to formulate a management plan for patients suffering from typical musculoskeletal conditions. This subject is a composite subject comprising two distinct core elements – 1. Osteopathic Principles & Practice. 2. Osteopathic Diagnosis & Management. These core elements will be taught and assessed as distinct subjects. Students will have to gain a mandatory pass, or better, in all core elements before they can be awarded a pass within the subject title: Osteopathic Science 3. Material covered will include: Reinforcement of history and examination skills acquired in both Osteopathic Science 1 & 2 and the Clinical Diagnosis and Management subject. Emphasis will be placed upon osteopathic evaluation of the patient concentrating upon the neuro-musculoskeletal system. Continued development of the concepts and skills acquired in Osteopathic Science 1 & 2. Further evolution of osteopathic skills with awareness of the nature of the forces used; soft tissue and articulatory, rhythmic, low velocity, and high velocity low amplitude thrust techniques. Development of the ability to formulate suitable and safe treatment programs for the diverse range of patients that attend for osteopathic treatment. Attention being given to those factors which impact upon patient presentation including relevance of predisposing and maintaining factors. Continued development, and further refining, of high velocity low amplitude thrust techniques, the principles underlying their use, and their place within the manipulative prescription. The application of HVLA techniques to functional areas of the spine. Introduction and elaboration of the concepts and practice of Muscle Energy Technique to include diagnostic and Neuro physiological models. Muscle Energy Techniques applicable to the spine and peripheral joints.

Osteopathic assessment and management of peripheral joint disorders. Development of a differential diagnosis, formulating a prognosis and prescribing suitable and safe osteopathic treatment. Introduction to the psycho-social aspects of osteopathic patient management allowing integration with the units of Psychology and Sociology.


Subject Hours Six hours per week or equivalent for both semesters comprising lectures, tutorials/workshops and practical classes.

Assessment Semester one: Written examination, ; practical, Semester two: Written examination, practical. All components must be achieved before an overall pass can be awarded.

HHP1171 PHYSIOLOGY 1
Campus St Albans
Prerequisite(s) Nil
Content The subject includes the introduction to the principles and concepts of basic human physiological methodology. Major concepts involved: homeostasis, cellular physiology, blood and the body’s natural defences, introduction to the nervous system, membrane and action potentials, transmission of nervous impulses, muscle and skeletal physiology. The theoretical physiological knowledge is integrated with laboratory skills enhancing and extending knowledge through the use of laboratory reports and questions. Development of critical thinking, research skills and writing is undertaken throughout the subject.


Subject Hours Two one-hour lectures per week and one two-hour laboratory/workshop on alternate weeks for one semester.

Assessment Semester 2: End of semester exam, 50%; laboratory reports, 15%; multiple choice mid semester exams [x2], 20%; assignment [2000 words], 15%. All components must be passed to achieve an overall pass in the subject.
HHP2172 PHYSIOLOGY 2
Campus: City Flinders
Prerequisite(s): HHP1171 Physiology 1; or equivalent.
Content: The subject aims to consolidate and further develop knowledge gained in HHP1171 Physiology 1. To study the physiology of systems not covered in Physiology 1, and to develop a review process for physiology research papers. At the completion of the subject students should have a thorough understanding of the basic physiology of the major systems, and should be able to demonstrate a critical approach to physiological research. Content will include: Expansion of the fundamental principles and concepts covered in Physiology 1. The relation of theoretical physiology knowledge to clinical cases. Understanding the major physiological concepts involved in respiratory physiology, gastro-intestinal physiology, metabolism and endocrinology. Further development of a critical thinking and assessment model for physiology research papers.
Required Reading: As for HHP1171 Physiology 1.
Recommended Reading: As for HHP1171 Physiology 1.
Subject Hours: One two-hour lecture, one one-hour laboratory workshop/tutorial or equivalent every week for two semesters.
Assessment: Semester One: End of semester exam, 25%; case study tutorial work, 10%; assignment, 10%; multiple choice mid semester exam (x2), 10%. Semester Two: End of semester exam, 25%; case study tutorial work, 10%; multiple choice mid semester exam (x2), 10%.

HHP3174 PHYSIOLOGY 4
Campus: City Flinders
Prerequisite(s): HHP2172 Physiology 2; or equivalent.
Content: The subject aims to introduce the students to theoretical and practical concepts of exercise physiology and exercise prescription, and to consider exercise prescription for specific patient groups. At the completion of the subject students should have a broad understanding of the principles of exercise physiology and exercise prescription, and should understand the principles of drawing up exercise prescriptions for specific patient groups. Content will include: Physiology of exercise prescription. Principles of exercise prescription. Fitness definitions. Cardiovascular & skeletal responses to exercise. Aerobic and anaerobic exercise. Exercise prescription for specific groups.
Required Reading: As for HHP2172 Physiology 2.
Recommended Reading: Students will be provided with further reading references for individual lecture topics.
Subject Hours: One one-hour lecture and one one-hour tutorial practical per week in semester one.
Assessment: Written examination, 80% assignment 20%.

HHR1243 NURSING STUDIES (3) CLINICAL PROJECT
Campus: St Albans
Prerequisite(s): Nil
Content: This is a culminating subject which aims to provide students with an opportunity to develop and apply their learning acquired in the previous subjects in the course. The main focus will be on the application of knowledge and skills in the provision of health care to clients/patients in a diversity of locations/settings. Students will present a proposal for a project, which forms the basis of their theoretical, field and assessment undertakings. Following acceptance the project will be drawn up. The clinical project should draw on and/or encompass-advanced nursing skills and techniques, problem-solving techniques, organisation and management strategies, the incorporation of appropriate biological and social sciences, relevant research findings, teaching-learning approaches.

HHR4114 A & M CLINICAL MEDICINE 3
Campus: St Albans
Prerequisite(s): HHR3244 A & M Therapeutic Applications; HHR4114 A & M Clinical Medicine 1; HHR4124 A & M Clinical Medicine 2; HHP3434 Counselling Skills for TCM Practitioners; HHA3254 Clinical Practice (A&M) 4; or equivalent.
Content: Using a wide range of case studies, students will undertake TCM differential diagnosis, establish the treatment principal, develop a treatment and management plan and where appropriate carry out treatment under supervision for clients experiencing the following: jing luo disharmonies; zang fu disharmonies; fundamental substance disharmonies; wu xing extra meridian disharmonies; four radical disharmonies; mixed disharmonies; continuing development of communication skills; exploring the many facets of the client/practitioner relationship.
Subject Hours: Fifty two hours for one semester comprising lectures and tutorials or equivalent.
Assessment: Seminar presentation, 30%; one test, 30%; one written assignment, 40%. A pass must be gained for each component of the assessment.

HHS3171 PSYCHOLOGY AND SOCIAL SCIENCES 1
Campus: St Albans
Prerequisite(s): Nil
Content: The subject aims to introduce students to the different psychological and sociological aspects of healthcare practice. Students study gender, age, ethnicity and socio-economic status.
and the relevance in healthcare practice. Students examine the needs of individuals with a terminal illness and their carers, and the potential role of the Osteopath. Students develop communication and interviewing skills relevant to Osteopathic practice. Students learn to understand the effects of stress on the patient as well as the healthcare practitioner and how this may be addressed. Students study health compromising behaviours and appropriate intervention as well gain an understanding of psychological issues relating to human development.

Required Reading:

**Recommended Reading**
To be advised by subject lecturer.

**Subject Hours**
One, One hour lecture per week for the first semester. One, one hour tutorial per week for the second semester.

**Assessment**
Assignment 70%, written exam 30%.

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**HHT1000 MAJOR CLASSICS – NEI JING**

**Campus** St Albans

**Prerequisite(s)**
HHT1002 Fundamentals of Chinese Medicine; or equivalent.

**Content**
Specific attention will be directed to such ideas as yin-yang; wu xing; the heaven, earth and humanity principle; the nature and meaning of Shen; the different ways of specifying and locating Qi in the body and external world; the notion of body-mind; the cultivation of life (Qi) and the idea of the good practitioner. The exploration of Nei Jing ideas is linked to major philosophical concepts, which inform the theory and practice of CM.

**Required Reading**

**Recommended Reading**
To be advised by Lecturer.

**Subject Hours**
Three hours per week or equivalent for one semester comprising lectures and self-managed learning activities.

**Assessment**
One written project comprising two parts (2000 words) (100%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%.

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**HHT1001 INTRODUCTION TO CHINESE MEDICAL LITERACY**

**Campus** St Albans

**Prerequisite(s)**
Nil

**Content**
Basic terms in Chinese medicine including: names of commonly used herbs; names of common acupuncture points and general terminology used in Chinese Medicine theory; writing Chinese characters including: stroke order and balance; pin yin transliteration and use of tone marks; pronunciation of Chinese terms; introduction to Chinese medical dialogue.

**Required Reading**

**Recommended Reading**
To be advised by Lecturer.

**Subject Hours**
Four hours per week for one semester comprising lectures, tutorials and self-managed learning activities.

**Assessment**
One oral examination (20%); two written examinations. To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (oral examination) may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%. Where the final examinations are failed, supplementary examinations will be offered. The maximum possible mark on any supplementary examination will be 50%.

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**HHT1002 FUNDAMENTALS OF CHINESE MEDICINE**

**Campus** St Albans

**Prerequisite(s)**
Nil

**Content**
The clinical gaze of Chinese medicine; overview of historical and philosophical context; function and dysfunction according to Chinese Medicine; introductory illness states – Yin Yang; Wu Xing; Qi, Xue, Jin Ye, Ba Gang; psyche according to Chinese medicine; causes and occurrences of disease; Zang Fu organ system, Curious Fu; introduction to diagnostic methods; Zang Fu/jing luo interrelationships; mechanisms of disease development; basic herbal properties, functions and theories: Si Qi, Wu Wei, four directions, courier herbs, classification, compatibility, cautions, contraindication, quality, harvesting.

**Required Reading**

**Subject Hours**
Eleven (11) hours per week or equivalent for one semester comprising lectures, tutorials and workshops. Four hours per week dedicated to herbs. Students should reasonably expect to devote additional private contact hours of at least 2-3 times more than the stipulated class contact hours.

**Assessment**
One assignment (1200 words) (30%); one combined practical and oral examination (10%) (hurdle requirement); two final theory examinations (30% each part, total 60%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment item (assignment and combined practical and oral examination) may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.
aetiology and manifestation of the energetic patterns of disharmony as they pertain to the jing luo, wu xing, zang fu and fundamental substances; etiology and pathomechanisms of symptom presentations; methods of differential diagnosis; overview of febrile disease differentiation – six channels, four levels, San Jiao syndromes; case histories and individual symptom differentiation; Materia Medica and jing luo system consolidated in relation to diagnostic treatment design.

**Required Reading**

**Recommended Reading** To be advised by Lecturer.

**Subject Hours** Six hours per week or equivalent for one semester comprising lectures, tutorials, workshops and self managed learning activities.

**Assessment** One combined practical and oral examination (50%); one final examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (combined practical and oral examination) may be re-attempted once only. Proficiency standard must be obtained on any re-attempted combined practical and oral examination. Maximum possible marks to be obtained on any reattempt will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

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**HHT1007 CHINESE PHARMACOPEIA**

**Campus** St Albans

**Prerequisite(s)** HHT1002 Fundamentals of Chinese Medicine; or equivalent.

**Corequisite(s)** HHT1105 Chinese Medical Diagnosis and Pathogenesis 1; HHT1008 Introduction to Clinical Practice; or equivalents.

**Contents**
- Introduction and overview of the historical development of Chinese herbal medicine; the categories of the Chinese Materia Medica; major herb theories, precautions, naming of herbs: regions, colours, plant parts, names and alternatives; the categories of the Materia Medica (e.g., release exterior, clear heat, drain downward, drain dampness, expel wind-damp, transform phlegm and stop cough, aromatically transform dampness, relieve food stagnation regulate Qi, regulate Xue, warm interior and expel cold, tonifying, restrain essence, Shen calming, orifice opening, extinguish wind and stop terrors, expel parasites); external applications; character writing and pronunciation of Chinese medical terminology will be extended. The characters for the names of the herbs will be emphasized along with the Latin binomial (botanical) and common names of the herbs. The principles and application of Pao Zhi.

**Required Reading**
- *Introduction to Chinese medical literature*. Melbourne: Victoria University of Technology, School of Health Science.

**Recommended Reading** To be advised by Lecturer.

**Subject Hours** Six hours per week or equivalent for one semester comprising lectures, tutorials and self-managed learning activities.

**Assessment** One project (50%); one tutorial presentation (30%); one examination (20%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (project) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

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**HHT1101 ACUPUNCTURE POINT LOCATION 1**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content**
- Introduction to jing luo theory and an overview of acupuncture point function and dynamics; proportional measurements; gross surface anatomy as it pertains to the location of acupuncture points; the location of acupuncture points on the 12 primary meridians, Ren Mai and Du Mai; contraindications of specific acupuncture points; depths of needling of acupuncture points.

**Required Reading**
HHT2000 HEALTH ENHANCEMENT (YANG SHENG)

Campus St Albans
Prerequisite(s) Nil
Content The medicinal use of foods, the use of foods to prevent disease and maintain health, Chinese dietary theory and practice, the role of lifestyle activities, the meaning of mental cultivation, breathing and physical exercises (introduction to Tai Qi or Qi Gong).


Subject Hours Three hours per week or equivalent for one semester comprising lectures, laboratories, demonstrations and workshops. Students should reasonably expect to devote additional private contact hours of at least 2-3 times more than the stipulated class contact hours.

Assessment One combined practical and oral assessment (50%); one theory examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (combined practical and oral assessment) may be re-attempted once only. Proficiency standard must be obtained on any re-attempted examination. Maximum possible marks to be obtained on any re-attempt will be 50%. Where the final examination is failed, it may be offered. The maximum possible mark on the supplementary examination will be 50%. All assessment items address the CGA levels as indicated in the Learning Outcomes.
all components of assessment must be attempted and passed. Failed assessment item (mid semester examination) may be re-attempted once only. Maximum possible marks to be obtained on any reattemp will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

HHT2003 CHINESE MEDICAL DIAGNOSIS AND PATHOGENESIS 2

Campus St Albans
Prerequisite(s) HHT1005 Chinese Medical Diagnosis and Pathogenesis 1; HHT1006 Acupuncture Point Location; HHT1007 Chinese Pharmacopoeia; or equivalents.
Content Further development of four the ‘four examinations’, including palpation of channels, points and Hara diagnosis; detail of the differential diagnostic process; disease aetiology illness, Jing luo syndromes, Zang-fu mixed syndromes, febrile disease differentiation – six channels complicated patterns; Wen Bing detail combining Zang Fu, San Jiao and latent diseases; examination of tongue, skin, and teeth; diagnosis and case histories; individual symptom differentiation; application of Materia Medica and Jing-luo theory in relation to diagnostic outcomes.
Recommended Reading To be advised by Lecturer.
Subject Hours Six hours per week or equivalent for one semester comprising lectures, seminars, workshops and self managed learning activities.
Assessment One assignment (1200 words) (30%); one combined practical and oral assessment (50%) (hurdle requirement); one final examination (40%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (assignment and combined practical and oral examination) may be re-attempted once only. Proficiency standard must be obtained on any re-attempted combined practical and oral examination. Maximum possible marks to be obtained on any reattemp or resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

HHT2005 CHINESE MEDICINE ASEPSIS AND STERILIZATION

Campus St Albans
Prerequisite(s) HHT1006 Acupuncture Point Location; SBM1525 Anatomy and Physiology 2; or equivalents.
Content Asepsis in Chinese Medicine practice; disinfection and sterilization in Chinese Medicine practice; basic microbiology and epidemiology for Chinese Medicine practice; cross infection, infection control and risk factors in Chinese Medicine practice; legal issues for the safe practice of acupuncture and herbal medicine.
Recommended Reading To be advised by Lecturer.
Subject Hours Two hours per week or equivalent of workshops for one semester.
Assessment Two combined practical and oral exams (50% each) (pass/fail) (hurdle requirements). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (combined practical and oral examinations) may be re-attempted once only. Proficiency standard must be obtained on any re-attempted combined practical and oral examination. Maximum possible marks to be obtained on any reattemp or resubmission will be 50%. This subject is a hurdle requirement.
**HHT2007 TCM REMEDIAL MASSAGE (AN MO TUI NA)**

**Campus** St Albans

**Prerequisite(s)** HHT1005 Chinese Medical Diagnosis and Pathogenesis 1; HHT1006 Acupuncture Point Location, or equivalents.

**Content** Adult and paediatric Tui Na techniques. Client care (privacy and sensitivity); Consolidation of Channel pathways, point location and functions of major points used in Tui Na practice. Gua Sha techniques and protocols. Cupping and Moxibustion theory and practice. Contra-indications for Tui Na, Gua Sha, Moxibustion and Cupping.


**Recommended Reading** To be advised by Lecturer.

**Subject Hours** Two hours per week for two semesters comprising workshops, seminars and self-managed learning activities.

**Assessment** Semester One: One combined practical and oral assessment (50%) (hurdle requirement). Semester Two: One combined practical and oral assessment (50%) (hurdle requirement). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (combined practical and oral assessment) may be re-attempted once only. Proficiency standard must be obtained on any re-attempted combined practical and oral assessment. Maximum possible marks to be obtained on any reattempt will be 50%.

**HHT2009 PHARMACOPOEIA AND DISPENSING**

**Campus** St Albans

**Prerequisite(s)** HHT1005 Chinese Medical Diagnosis and Pathogenesis 1; HHT1007 Chinese Pharmacopoeia; or equivalents.

**Content** The lesser used herbs from the categories of the Materia Medica: release exterior, clear heat, drain downward, drain dampness, expel wind-damp, transform phlegm and stop cough, aromatically transform torment, relieve food stagnation, regulate qi, regulate xue, warm interior and expel cold, tonifying, (Qi, Yang, Yin, Xue) restrain essence, (stabilise and bind) shen calming, orifice opening, extinguish wind and stop tremors. Pao Zhi theory and practical.


**Subject Hours** Six hours per week or equivalent for one semester comprising lectures, tutorials and practical cooking laboratories. Students should reasonably expect to devote additional private contact hours of at least 2-3 times more than the stipulated class contact hours.

**Assessment** One written assignment (1200 words) (20%); one combined practical and oral examination (40%) (proficiency standard hurdle requirement); one 2-hour written theory examination (40%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment item (written assignment and combined practical and oral assessment) may be re-attempted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Proficiency standard must be obtained on any re-attempted practical and oral examination. Any failed assessment item will need to be discussed in the first instance with the Unit Co-ordinator. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

**HHT2011 CHINESE MEDICINE CLINICAL PRACTICE 1**

**Campus** St Albans, Flinders Lane, Off Campus

**Prerequisite(s)** Satisfactory completion of Year 1 of the HBAH degree; or equivalent

**Content** During the first week of the semester, students will attend seminars to orient themselves to the second level of this supervised clinical program and to revisit learning expectations required of students in the clinic. Topics include: preparation of necessary acupuncture equipment for each clinic room; maintenance of client records; methods of Pao Zhi including grinding, dry fying, char fying and honey frying; practical skills include the monitoring consultation processes; herbal identification, use of scales, accurate and safe dispensing of herbs; explanation of herbal preparation to clients; storage and handling of herbs, Materia Medica substitutions; arriving at diagnosis and treatment principle; practitioner diagnosis and treatment details; general client care and comfort; pulse taking; arranging appointments; the role of assistant in the clinical setting; privacy and confidentiality issues.


**Recommended Reading** To be advised by Lecturer.

**Subject Hours** A minimum of seventy-two [72] hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).

**Assessment** Supervised placement comprising successful completion of required 72 clinical hours [pass/fail] (hurdle requirement) and overall satisfactory report(s) from clinical placement[s] [pass/fail] (hurdle requirement); combined practical and oral examination (proficiency standard hurdle requirement). To obtain at least an Ungraded Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (combined practical and oral examination) may be re-attempted once only. Proficiency standard must be obtained on

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any re-attempted practical and oral examination. Any failed assessment item will need to be discussed in the first instance with the Clinical Co-ordinator. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

**HHT2100 FORMULAE AND STRATEGIES 1**

**Campus** St Albans

**Prerequisite(s)** HHT1105 Chinese Medical Diagnosis and Pathogenesis 1; HHT1007 Chinese Pharmacopoeia; or equivalents.


**Subject Hours** Six hours per week or equivalent for one semester comprising lectures and tutorials. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

**Assessment** One written examination (end-of-semester) (100%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment item (examination) may be resubmitted and re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

**HHT2104 ACUPUNCTURE NEEDLING: THEORY AND PRACTICE 1**

**Campus** St Albans

**Prerequisite(s)** HHT1201 Acupuncture Point Location 2; RMB1910 Microbiology for Chinese Medicine Practitioners; or equivalents.

**Content** Surface anatomy relevant to locating and needling of acupuncture points; anatomy relevant to the depths of needling acupuncture points; locating and correctly needling acupuncture points; the notion of intent as it applies in CM practice, needle insertion; obtaining the de Qi sensation; moving Qi; management of needle accidents; contraindications for needling. Review of cupping in the context of needle techniques. The relationship between acupuncture point selection and ‘reading’ the radial pulse before and after needling. Introduction to plum blossom needling and three-edge bleeding techniques. Jing-luo theory including the muscle-tendino meridians, luo mai, divergent meridians, internal pathways and the inter-relationships between the various meridians and meridians; the functions and dynamics of the major categories of acupuncture points.


**Subject Hours** Five hours per week or equivalent for one semester comprising lectures, tutorials and workshops. Students should reasonably expect to devote additional private contact hours of at least 2-3 times more than the stipulated class contact hours.

**Assessment** Class participation (80% participation in tutorials, workshops and laboratory activities) [pass/fail] (hurdle requirement); one combined practical and oral examination (50% each) (proficiency standard hurdle requirement); one written examination (50%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (progressive tests and combined practical and oral examinations) may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%. Proficiency standard must be obtained on any re-attempted practical and oral examination. Any failed assessment item will need to be discussed.
in the first instance with the Unit Co-ordinator. Where the final
examination is failed, a supplementary examination may be offered.
The maximum possible mark on the supplementary examination will
be 50%. This unit is a hurdle requirement. All assessment items
address the CGA levels as indicated in the Learning Outcomes.

HHT2200 FORMULAE AND STRATEGIES

Campus St Albans
Prerequisite[s] HHT2100 Formulæ and Strategies 2; or equivalent

Content The fourteen categories in which formulæ are assembled.
Functions, indications and associated treatment principles. Classical
and modern applications and interpretations of formulæ.
Relationship to clinical usage. Differentiation amongst similar
formulæ. Guidelines for determining correct formulæ for particular
clinical situations. Notions of dosage and the appropriateness of
varying dosages. Formulæ modifications.

Ellis, A. (2003). Notes from south mountain. A guide to
of Exports and Imports) Act, (1982~ & Am.). Available from
.

Recommended Reading Dharmamanda, S. (1988). Pearls from
the golden cabinet. Long Beach, CA: Oriental Healing Arts Institute.

Subject Hours Five hours per week or equivalent for one
comprising lectures and tutorials semester. Students should
reasonably expect to devote additional private contact hours of at
least three times more than the stipulated class contact hours.

Assessment One essay (1000 words) (30%); one written
examination (end-of-semester) (70%). To obtain at least a Pass in the
unit, normally all components of assessment must be attempted and
passed. Failed assessment item (essay and examination) may be
resubmitted and re-attempted once only. Maximum possible marks to
be obtained on any re-attempt will be 50%. This unit is a hurdle
requirement. All assessment items address the CGA levels as indicated in the
Learning Outcomes.

HHT2201 CHINESE MEDICINE CLINICAL PRACTICE 1

Campus St Albans, Flinders Lane, Off Campus

Prerequisite[s] HHT2100 Chinese Medical Diagnosis and
Pathogenesis 2; HHT2111 Chinese Medicine Clinical Practice 1; or equivalents.

Content During the first week of the semester, students will attend
seminars to orient themselves to the second level of this supervised
clinical program and to revisit learning expectations required of
students in the clinic. Topics include: preparation of necessary
acupuncture equipment for each clinic room; maintenance of client
records, general procedures involved in managing files including:

- retrieving and storing of client files, updating files, and preserving
the confidentiality of client files; arriving at diagnosis and treatment
principles; practitioner diagnosis and treatment details; general client
care and comfort; pulse taking; arranging appointments; review of
procedures in dispensing herbs (herbal identification, use of scales,
accurate dispensing, safe dispensing); an introduction to the more
complex methods of processing of herbs. Pao Zhi, Shi liao,
moxibustion and acupuncture skills; the role of the assistant in the
clinical setting; privacy and confidentiality issues.

Required Reading Australian Acupuncture & Chinese Medicine
Association Code of Ethics. (n.d.). Available from AACMA Web site,
School of Health Sciences, Victoria University of Technology,
Australia. Infection Control Guidelines for Acupuncture –

Subject Hours Four hours per week or equivalent for one
comprising lectures, tutorials, seminars to orient themselves to the second level of this supervised
clinical program and to revisit learning expectations required of
students in the clinic. Topics include: preparation of necessary
acupuncture equipment for each clinic room; maintenance of client
records, general procedures involved in managing files including:

- retrieving and storing of client files, updating files, and preserving
the confidentiality of client files; arriving at diagnosis and treatment
principles; practitioner diagnosis and treatment details; general client
care and comfort; pulse taking; arranging appointments; review of
procedures in dispensing herbs (herbal identification, use of scales,
accurate dispensing, safe dispensing); an introduction to the more
complex methods of processing of herbs. Pao Zhi, Shi liao,
moxibustion and acupuncture skills; the role of the assistant in the
clinical setting; privacy and confidentiality issues.

Required Reading Australian Acupuncture & Chinese Medicine
Association Code of Ethics. (n.d.). Available from AACMA Web site,
School of Health Sciences, Victoria University of Technology,
Australia. Infection Control Guidelines for Acupuncture –

Assessment Supervised placement comprising successful
completion of required 72 clinical hours (pass/fail) (hurdle requirement)
and overall satisfactory report(s) from clinical placement(s) (pass/fail) (hurdle requirement); combined practical
and oral examination (proficiency standard hurdle requirement). To
obtain at least an Ungraded Pass in the unit, normally all
components of assessment must be attempted and passed. Failed
assessment items (combined practical and oral examination) may be
re-attempted once only. Proficiency standard must be obtained on
any re-attempted practical and oral examination. Any failed
assessment item will need to be discussed in the first instance with the
Clinical Co-ordinator. This unit is a hurdle requirement. All
assessment items address the CGA levels as indicated in the
Learning Outcomes.

HHT2205 ACUPUNCTURE NEEDLING: THEORY AND PRACTICE 2

Campus St Albans

Prerequisite[s] HHT2104 Acupuncture Needling: theory and Practice 1; RBM1910 Microbiology for Chinese Medicine
Practitioners; or equivalents.

Content Surface anatomy relevant to locating and needling of
acupuncture points; anatomy relevant to the depths of needling
acupuncture points; locating and correctly needling acupuncture
points; the notion of intent as it applies in CM practice, needle
insertion; obtaining the de Qi sensation; moving Qi; management of
needle accidents; contraindications for needling. Review of cupping
in the context of needle techniques. The relationship between
acupuncture point selection and ‘reading’ the radial pulse before
and after needling. Introduction to plum blossom needling and three-
edge bleeding techniques. Jing-luo theory including the muscle-
tendinous meridians, luo mai, divergent meridians, internal pathways
and the inter-relationships between the various elements and
meridians; the functions and dynamics of the major categories of
acupuncture points. Safety issues; review of aseptic procedures,
infection control and risk management strategies.

acupuncture. New York: Churchill Livingstone. Deadman, P., Al-
ed.). California: Eastland Press. Guidelines on Basic Training and

**Recommended Reading**


**Subject hours**

Five hours per week or equivalent for one semester comprising lectures, tutorials and workshops. Students should reasonably expect to devote additional private contact hours of at least 2-3 times more than the stipulated class contact hours.

**Assessment**

Class participation (80% participation in tutorials, workshops and laboratory activities) (pass/fail) [hurdle requirement]; one combined practical and oral examination (50% each) [proficiency standard hurdle requirement]; one written examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (progressive tests and combined practical and oral examinations) may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

**HHT3001 INTERNAL MEDICINE**

**Campus** St Albans

**Prerequisite(s)** HHT2001 Fundamental Herbal Formulas; HHT2006 Acupuncture Needling; or equivalents.

**Corequisite(s)** HHK3003 Therapeutic Applications – Chinese Herbal Medicine; HHK3002 Acupuncture Therapeutic Applications; or equivalents.

**Content**

This subject examines in detail traditional Chinese internal medicine (Nei Ke) based on the fifty-two disorders as specified in the classic the Jin Gui Yao Lue and additional disorders of clinical significance. The diagnosis of these disorders and their differentiation into patterns (zheng) according to the system of bian zheng lun zhi receives detailed attention. The origin of each disorder and the pathomechanisms by which its symptoms manifest and develop are discussed. The design of treatment interventions using herbal prescription, acupuncture, moxibustion and dietary therapy (shi liao) according to the differentiation of the disorder is examined.

**Required Reading**


**Recommended Reading**

To be advised by Lecturer.

**Subject Hours**

Six hours per week or equivalent for two semesters comprising lectures, tutorials and self-managed learning activities.

**Assessment**

One assignment (1500 words) (20%); two examinations (40% each) over two semesters. To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item [assignment] may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%. This subject is a hurdle requirement.

**HHT3003 COUNSELLING SKILLS FOR CHINESE MEDICAL PRACTICE**

**Campus** St Albans

**Prerequisite(s)** HH2020 Chinese Medicine Clinical Practice – Herb Major 2; or HHK2020 Chinese Medicine Clinical Practice – Acupuncture Major 2; or equivalent.

**Content**

This subject explores and reflects upon the evolution of current popular counselling techniques. The subject allows the student to experience how they may adapt counselling techniques to the CM framework of clinical practice. This subject explores many facets of the client/practitioner relationship, ethical issues, professionalism and confidentiality. In preparation for the student’s future role as a primary health care CM practitioner, the subject will also cover such topics as death and dying; trauma; sexual, emotional and physical abuse; the elderly; and cross cultural counselling.

**Required Reading**

Recommended Reading To be advised by Lecturer.

Subject Hours Four hours per week or equivalent for one semester comprising seminars, workshops and self-managed learning activities.

Assessment Class participation (80% attendance requirement and appropriate participation) (25%); reflective journal (1000 words) (25%); one assignment (1000 words) (50%). To obtain an Ungraded Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any re-submission will be 50%.

HHT3004 CLINICAL PHARMACOLOGY FOR CHINESE MEDICAL PRACTICE

Campus St Albans

Prerequisite(s) HHT2001 Fundamental Herbal Formulas; SBM2575 Phytopharmaceutics; SBM3515 Clinical Pharmacology and Pathophysiology; or equivalents.

Content Concentration response relationships, adsorption of drugs, xenobiotics and drug/xenobiotic distribution; metabolism of xenobiotics including roles in drug elimination, detoxification, production of toxic and mutagenic intermediates, excretion, pharmacokinetics and clearance; overview of drugs used in major diseases in relation to drug mechanisms, basic pharmacokinetics, adverse reactions and interactions known to occur with herbal remedies; the interface between the biological actions of herbs and modern pharmaceuticals; current scheduling process for therapeutic products; reporting procedures for adverse drug/herb interactions.


Recommended Reading To be advised by Lecturer.

Subject Hours Three hours per week of equivalent for one semester comprising lectures, seminars and self-managed learning activities.

Assessment One written assignment (2000 words) (50%); one 2-hour examination (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.

HHT3100 CHINESE MEDICAL MICRO-SYSTEMS

Campus St Albans

Prerequisite(s) RBM1910 Microbiology for Chinese Medicine Practitioners; HHT2205 Acupuncture Needling: Theory and Practice 2; or equivalents.

Content Ear and scalp acupuncture history, theory and practice; ankylodecapuscular acupuncture and skin sections theory and practice; scar therapy; the use of electronic devices including electro-acupuncture, laser and TENS in micro-system point location, diagnosis and therapy; further application of chronotherapy; magneto-therapy theory and practice; combined micro-system and body acupuncture point treatment principles and protocols; discrimination in the selection and application of the various techniques of micro-systems treatments


Subject Hours Three hours per week or equivalent for one semester comprising lectures and workshops. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment One combined practical and oral exam (50%) [proficiency standard hurdle requirement]; one written examination (50%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (combined practical and oral examinations) may be re-attempted once only. Proficiency standard must be obtained on any re-attempted combined practical and oral examination. Maximum possible marks to be obtained on any reattempt will be 50%. All assessment items address the CQA levels as indicated in the Learning Outcomes.
HHT3103 CHINESE MEDICINE CLINICAL PRACTICE 3

Campus St Albans, Flinders Lane, Off Campus

Prerequisite(s) Satisfactory completion of year 2 of the BBAH degree, or equivalent.

Content Topics include: assisting the practitioner during treatment; applying moxibustion, needle manipulation as required; assisting with cupping, moxibustion, shi liao and herbs; engage in discussion about developing a tentative diagnosis and treatment principle; carrying out therapeutic procedures as requested by the practitioner; review of standard operating procedures in dispensing herbs (herbal identification, use of scales, accurate, safe dispensing, ordering herbs, accounting procedures). Introduction to more complex methods of processing of herbs in preparation for continuation of the clinical program. Methods of Pao Zhi, moxibustion and acupuncture skills. The notion of pathogenesis and relationship to herbal prescriptions. Materia Medica substitutions, advanced herbal recognition.


Recommended Reading To be advised by Lecturer.

Subject Hours A minimum of seventy-two (72) hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).

Assessment Supervised placement comprising successful completion of required 72 clinical hours [pass/fail] (hurdle requirement) and overall satisfactory report(s) from clinical placement(s) [pass/fail] (hurdle requirement); combined practical and oral examination [proficiency standard hurdle requirement]; case report [pass/fail] (hurdle requirement). To obtain at least an Ungraded Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (combined practical and oral examination and case report) may be re-attempted and resubmitted once only. Proficiency standard must be obtained on any re-attempted practical and oral examination. Any failed assessment item will need to be discussed in the first instance with the Clinical Co-ordinator. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

HHT3104 MAJOR CLASSICS – SHANG HAN LUN & WENG BING 1

Campus St Albans

Prerequisite(s) HHT2003 Chinese Medical Diagnosis and Pathogenesis 2; HHT2200 Formulas and Strategies 2; HHT2205 Acupuncture Needling: Theory and Practice 2; or equivalents.

Content Shang Han Lun and Wen Bing as part of history of ideas in Chinese medicine. Underlying theories associated with these two texts. Comparison of the Shang Han and Wen Bing treatment strategies. Onset and transmission of disease according to Shang Han and Wen Bing. The concept of Pattern Identifications by the Six Channels. The application of the Eight Guiding Principles. The concept of externally contracted diseases caused by pathogenic cold and wind. Onset and transmission of wen bing diseases. Correlation of the Four Aspects with the Triple Jiao, and Six Channels, diagnosis of Wen Bing Fever, tongue, Bon, Zhen, Milliar Alba, Fu xie (latent disease), Wen Bing treatment strategies. Character writing of terminology.


Subject Hours Five hours per week or equivalent for one semester comprising lectures and tutorials. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment One assignment (1500 words) (40%); SML tasks (20%); one examination (40%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

HHT3106 INTERNAL MEDICINE 1

Campus St Albans

Prerequisite(s) HHT2003 Chinese Medical Diagnosis and Pathogenesis 2; HHT2200 Formulas and Strategies 2; HHT2205 Acupuncture Needling: Theory and Practice 2; or equivalents.

Content This unit examines in detail traditional Chinese internal medicine (Nei Ke) based on the fifty-two disorders as specified in the classic the Jin Gui Yao Lue and additional disorders of clinical significance. The diagnosis of these disorders and their differentiation into patterns (zheng) according to the system of bian zheng lun zhi receives detailed attention. The origin of each disorder and the pathomechanisms by which its symptoms manifest and develop are discussed. The design of treatment interventions using herbal prescriptions, acupuncture, moxibustion and dietary therapy (shi liao) according to the differentiation of the disorder is examined.


Recommended Reading

Subject Hours
Six hours per week or equivalent for one semester comprising lectures and tutorials. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment
One final written cases examination (50%); one final written theory examination (50%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (case analyses examination) may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

HHT3108 CHINESE MEDICINE THERAPEUTIC APPLICATIONS 1

Campus
St Albans

Prerequisite(s)
HHT2200 Fundamentals and Strategies 2; or equivalent

Content
The focus of this unit is to prepare students for their internship year. Attention is given to an mo tui na techniques, approaches to wu guan, diagnosis, treatment and management strategies (acupuncture and herbs), wu guan, an in-depth exploration of contemporary treatment techniques and approaches, and the notion of yi (intent) as it applies to Chinese medicine. Critical analysis of case studies, approaches to acupuncture selection, discrimination between points and herbal prescription.

Required Reading

Recommended Reading

Subject Hours
Five hours per week or equivalent for one semester comprising seminars and workshops. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment
Class participation [80% attendance requirement and appropriate participation as outlined in the unit outline] (hurdle requirement); one assignment [1500 words] [40%]; one practical examination [60%]. To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (assignment and practical examination) may be resubmitted or re-attempted once only. Maximum possible marks to be obtained on any resubmission or re-attempt will be 50%. Proficiency standard must be obtained on any re-attempted practical examination. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

HHT3003 COUNSELLING SKILLS

Campus
St Albans

Prerequisite(s)
Nil

Content
This unit explores and reflects upon the evolution of current popular counselling techniques. The unit allows students to experience how they may adapt counselling techniques and apply them to the CM framework of clinical practice. The unit explores many facets of the client-practitioner relationship, ethical issues, professionalism and confidentiality in preparation for the student’s future role as a primary healthcare Chinese medicine practitioner. Assertiveness skills and conflict resolution along with the management of angry clients will be introduced. Effective communication skills and self-awareness are also explored. The unit also covers related topics, such as death and dying; trauma; sexual, emotional and physical abuse; the elderly; and cross-cultural counselling.

Required Reading

Recommended Reading

Subject Hours
Four hours per week or equivalent for one semester comprising lectures, seminars and workshops. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment
Two case studies (25% each); one assignment [1500 words] (50%); reflective journal (hurdle requirement). To obtain a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (case studies and assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. All assessment items address the CGA levels as indicated in the Learning Outcomes.
HHT3105 MAJOR CLASSICS-SHANG HAN LUN WENG BING 2

Campus St Albans

Prerequisite(s) HHT3104 Major Classics – Shang Han & Wen Bing 1, or equivalent

Content Further development of Shang Han Lun and Wen Bing as part of the history of ideas in Chinese medicine. Complex theories associated with these two texts. Onset, transmission and transmutation of disease. Complex presentations according to Shang Han and Wen Bing. Alternative uses of shang han and wen bing formulae.


Subject Hours Five hours per week or equivalent for one semester comprising lectures and workshops. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment One research report (1500 words) (40%); one case study report (20%); one examination (40%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (research report and case study report) may be resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. All assessment items address the CGA levels as indicated in the Learning Outcomes.

HHT3203 CHINESE MEDICINE CLINICAL PRACTICE 4

Campus St Albans, Flinders Lane, Off Campus

Prerequisite(s) HHT3103 Chinese Medicine Clinical Practice 3; or equivalent

Content During the first week of semester, students attend a seminar to orient themselves to this level of the clinical program, to revisit expectations required of them as learners, and to review operating procedures of the clinical dispensary as preparation for continuation of the clinical program. Topics include: moxibustion, cupping, gua sha, needle manipulation techniques; the appropriateness of applying other therapeutic methods such as electro-acupuncture, laser therapy, muscle energy testing approaches, shi liao and other micro-systems approaches. Herbal formula prescriptions. Advanced dispensary work – ordering stock in consultation with a supervisor, cost appreciation and prescription accounting. Assisting practitioner as requested; providing preliminary diagnostic report to the practitioner; carrying out therapeutic procedures as requested by the practitioner.


Subject Hours A minimum of one hundred and eight (108) hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).

Assessment Supervised placement comprising successful completion of required 108 clinical hours (pass/fail) (hurdle requirement) and overall satisfactory report(s) from clinical placement(s) (pass/fail) (hurdle requirement); combined practical and oral examination (proficiency standard hurdle requirement); case report (pass/fail) (hurdle requirement). To obtain at least an Ungraded Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (combined practical and oral examination and case report) may be re-attempted and resubmitted once only. Proficiency standard must be obtained on any re-attempted practical and oral examination. Any failed assessment item will need to be discussed in the first instance with the Clinical Co-ordinator. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

HHT3207 INTERNAL MEDICINE 2

Campus St Albans

Prerequisite(s) HHT3106 Internal Medicine 2; or Equivalent.

Content This unit examines in detail traditional Chinese internal medicine (Nei Ke) based on the fifty-two disorders as specified in the classic the Jin Gui Yao Lue and additional disorders of clinical significance. The diagnosis of these disorders and their differentiation into patterns (zheng) according to the system of bian zheng lun zhi receives detailed attention. The origin of each disorder and the pathomechanisms by which it symptoms manifest and develop are discussed. The design of treatment interventions using herbal prescriptions, acupuncture, moxibustion and dietary therapy (shi liao) according to the differentiation of the disorder is examined.


**Recommended Reading**


**Subject Hours**

Six hours per week or equivalent for one semester comprising lectures and tutorials. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

**Assessment**

One oral case analyses examination (40%); one final written theory examination (60%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment item (case analyses examination) may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

**HHT3111 CHINESE MEDICINE THERAPEUTIC APPLICATIONS 2**

**Campus** St Albans

**Prerequisite(s)** HHT3106 Internal Medicine 1; HHT3108 Chinese Medicine Therapeutic Applications 1; or equivalents.

**Content**

This unit further prepares students for their internship year. Attention is given to an *mo tui na* techniques, approaches to *wu guan*, diagnosis, treatment and management strategies (acupuncture and herbs), *wu guan*, an in-depth exploration of contemporary treatment techniques and approaches, and the notion of *yi* (intent) as it applies to Chinese medicine. Critical analysis of case studies, approaches to acupuncture selection, discrimination between points and herbal prescription.

**Required Reading**


**Recommended Reading**


**HHT4001 CASE CONFERENCING AND CLINICAL ISSUES**

**Campus** St Albans

**Prerequisite(s)** HHT3001 Internal Medicine; or equivalent.

**Co-requisite(s)** HHT4003 Chinese Medical Pediatrics and Dermatology: Herbal Medicine; or equivalent.

**Content**

Topics covered are determined by the experience students have in treating clients. The subject will also revisit aspects of aseptic procedures; history taking; principles of diagnosis; treatment protocols; herb and point functions; dosages; *pao zhi* theory and practice; needling difficult points; point injection therapy, moxibustion, cupping, *Gua Sha*, acupuncture; prepared Chinese herbs; interpersonal skills and legal issues pertaining to acupuncture and herbal medicine practice. Case conferencing will require students to present to the class cases they have treated within the Victoria University of Technology clinical locations, giving a full history and treatments given. Students will be encouraged to discuss and reflect upon all aspects of the clinical encounters, including integrating supplementary published materials.

**Required Reading**


**Recommended Reading**

To be advised by Lecturer.

**Subject Hours**

 Forty-four (44) hours or equivalent for two semesters comprising seminar workshops and self-directed learning activities. The Semester Two component of this subject will be delivered in its entirety before the mid semester break to allow students the opportunity to undertake their final clinical internship in China.

**Assessment**

Class participation (80% attendance requirement and appropriate participation as outlined in the unit outline) (hurdle requirement); one final combined practical and oral examination (40%); one 3-hour final examination (60%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment item (combined practical and oral examination) may be re-attempted once only. Maximum possible marks to be obtained on any re-attempt will be 50%. Proficiency standard must be obtained on any re-attempted practical and combined practical and oral examination. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.
HHT4002 RESEARCH METHODS FOR CHINESE MEDICINE

Campus St Albans

Prerequisite(s) HHT3001 Internal Medicine; HHT1002 Fundamentals of Chinese Medicine; or equivalent.

Content Introduction to CM research design and methodology; paradigms of research; ways of obtaining CM knowledge; quantitative and qualitative research methods; research ethics; the application of the scientific method to CM research; non-experimental research designs; the evaluation of research; the computer as a research tool; scientific writing and the communication of research.


Recommended Reading To be advised by Lecturer.

Subject Hours Three hours per week or equivalent for one semester comprising lectures, tutorials and self-managed learning activities.

Assessment Two assignments (1000 words each) (50% each). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (assignments) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHT3202 CHINESE MEDICAL SPECIALTIES

Campus St Albans

Prerequisite(s) HHT3001 Internal Medicine; or equivalent.

Corequisite(s) HHT4002 Chinese Medical Gynaecology: Herbal Medicine; or equivalent.

Content Attention will be given to enhancing the student’s theoretical knowledge of CM diagnosis, aetiology, treatment principles and management strategies with regard to obstetrics, gynaecology, dermatology and paediatrics. This subject is conducted in conjunction with HHT4002 Chinese Medical Gynaecology: Herbal Medicine.


Recommended Reading To be advised by Lecturer.

Subject Hours Three hours per week or equivalent for one semester comprising lectures, tutorials and self-managed learning activities.

Assessment Assignment (1000 words) [40%]; theory examination in three parts: Dermatology [15%], Gynaecology [30%], Paediatrics [15%] (total 60%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%. This subject is a hurdle requirement.

HHT4004 PROFESSIONAL ISSUES FOR CHINESE MEDICAL PRACTICE

Campus St Albans

Prerequisite(s) HHT3020 Chinese Medicine Clinical Practice – Herb Major 4; or HHK3020 Chinese Medicine Clinical Practice – Acupuncture Major 4; or equivalent.

Content Community health: legal aid, relationship Counselling, child guidance, rehabilitation services, fertility clinics etc; practice management: employer responsibilities, record keeping, taxation, workers compensation, legal and civil requirements; Department of Health regulations: local council regulations, licensing of premises, public risk, the practitioners responsibilities; the bioethical requirements of the profession as they relate to research and to professional practice; CM organizations: professional accreditation, health funds and indemnity insurance, peer group associations Australian and international, the current status of CM; CM health politics; an update on recent research into CM; CM and health education and promotion; exposure to alternative perspectives on health care: osteopathy, chiropractic, physiotherapy, Alexander technique, naturopathy, European medical herbalism and homeopathy; psychology; working in various clinical settings.


Recommended Reading To be advised by Lecturer.

Subject Hours Forty (40) hours or equivalent for one semester comprising lectures, seminars and self-directed learning activities. This subject will be delivered in its entirety before the mid semester break to allow students the opportunity to undertake their final clinical internship in China.

Assessment Class presentation (30%); public presentation report (800 words) (20%); written assignment (1500 words) (50%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (report and assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHT4005 CHINESE MEDICINE ACUTE INTERVENTIONS

Campus St Albans

Prerequisite(s) HHT3202 Chinese Medical Specialties; or equivalents.

Content Basic first aid; the diagnosis, treatment, monitoring and management of acute onset of illness; the diagnosis, treatment, monitoring and management of clinical emergencies.


Recommended Reading To be advised by Lecturer.

Subject Hours Forty (40) hours or equivalent for one semester comprising lectures, seminars and self-directed learning activities and attending a Level 2 First Aid Certificate course (24 hours). This subject will be delivered in its entirety before the mid semester break to allow students the opportunity to undertake their final clinical internship in China.
HHT4100 CASE CONFERENCING & CLINICAL

ISSUES 1

Campus St Albans
Prerequisite(s) Satisfactory completion of year 3 of the HBAH degree; or equivalent.

Content This unit integrates Chinese medicine theory and practice via interrogation of student case presentations. Case presentations will be determined by the experiences of students when treating clients. The focus will be on commonly seen cases in the Chinese medicine clinical specialties. The unit reinforces aspects of aseptic procedures; history taking; principles of diagnosis; treatment protocols; herb and point functions; dosages; a range of treatment skills; legal issues; and interpersonal and professional communication skills.


Infection Control Guidelines for Acupuncture – Consultation Draft, [2004]. Available from Chinese Medicine Registration Board Web site:


Ming, L. (1990). Acupuncture in gynaecology with particular reference to treating gynaecological disorders with Chinese herbal formulae and acupuncture. Emphasis is on selected Materia Medica. The specialised role of acupuncture in obstetrics, including labour, and the role of Chinese medicine in relation to fertility and IVF are also examined. Professional issues in the patient-CM practitioner relationship and ethical issues in gynaecology and obstetrics in the Australian context are raised throughout.


Subject Hours Four hours or equivalent for one semester comprising seminar workshops. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment Class participation [80% attendance requirement as well as participation as stipulated in the unit tutorial guidelines] (pass/fail) [hurdle requirement]; two case conference seminars comprising one clinical review and one report in the designated assessment week(s) [Satisfactory/Unsatisfactory]. To obtain an Ungraded Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (seminars) may be re-attempted once only. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

HHT4101 CHINESE MEDICINE OBSTETRICS AND GYNAECOLOGY

Campus St Albans
Prerequisite(s) HHT3207 Internal Medicine 2; or equivalent.

Content This unit examines the Chinese medicine clinical specialty of gynaecology with particular reference to treating gynaecological disorders with Chinese herbal formulae and acupuncture. Emphasis is on selected Materia Medica. The specialised role of acupuncture in obstetrics, including labour, and the role of Chinese medicine in relation to fertility and IVF are also examined. Professional issues in the patient-CM practitioner relationship and ethical issues in gynaecology and obstetrics in the Australian context are raised throughout.


Subject Hours Four hours or equivalent for one semester comprising seminar workshops. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment Class participation [80% attendance requirement as well as participation as stipulated in the unit tutorial guidelines] (pass/fail) [hurdle requirement]; two case conference seminars comprising one clinical review and one report in the designated assessment week(s) [Satisfactory/Unsatisfactory]. To obtain an Ungraded Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (seminars) may be re-attempted once only. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.
be 50%. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement for graduation. All assessment items address the CGA levels as indicated in the Learning Outcomes.

**HHT4103 CHINESE MEDICINE CLINICAL INTERNSHIP 1**

**Campus** St Albans, Flinders Lane, Off Campus.

**Prerequisite(s)** Satisfactory completion of year 3 of the HBAH degree; or equivalent.

**Co-requisite(s)** HHT4100 Case Conferencing & Clinical Issues 1; or equivalent.

**Content** During the first week of semester, students will attend two 2-hour seminars to orient them to the final level of the clinical program; to review expectations of them in the clinic; to review student ethics and professional behaviour; to review standard operating procedures of the clinical dispensary and system in use for public consultations, in preparation for continuation of the clinical program. Students undertake their final year clinical placement as the Intern Practitioner in approved settings. Students are required to spend time in at least five of the Victoria University clinical locations in Melbourne to gain broad clinical experience in both acupuncture and herbs and be guided by a variety of clinical educators. This unit must be completed before offshore clinical placements can be approved. Internship Practitioner: The student practitioner is expected to conduct themselves in the professional manner as demonstrated by Practitioner Clinicians, working under the supervision of a qualified Chinese medicine practitioner. Skills required of the intern practitioner: take all casenotes, define diagnosis, herbs and main formulae that could the prescription could be based upon, define treatment principles and where appropriate apply acupuncture. The intern practitioner works independently and assumes full responsibility for the conduct of each consultation, and production of a final prescription. The supervising practitioner is accessed as required. The supervising practitioner must approve prescriptions as suitable and safe to dispense for each client consulted, before the prescription is processed in the dispensary. Internship Mentor: Final year students are to work closely with junior students to assist them in the development of clinical skills. Dispensary supervision: Final year students will spend part of their time as supervisor in the dispensary. This will give the Internship practitioner the opportunity to provide mentorship for junior students and assume responsibility for the running of the practice dispensary. While the supervising practitioner has overall authority, the Internship practitioner must liaise with the supervising practitioner for all financial decisions and must report discipline issues. During the mentorship process, the Intern practitioner has the authority to ensure School of Health Sciences Teaching Clinics policies and procedures are followed.


**Recommended Reading** To be advised by Lecturer.

**Subject Hours** A minimum of one hundred and fifty-six (156) hours in an approved clinical setting normally spread across one entire semester (hurdle requirement).

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**HUU2173 CLINICAL PRACTICUM 3**

**Campus** City Flinders

**Prerequisite(s)** HHO1171 Osteopathic Science 1; HHA1171 Anatomy 1; HHP1171 Physiology 1; HHU1272 Clinical Practicum 2; or equivalent.

**Corequisite(s)** HHO2173 Osteopathic Science 3; HHA2173 Anatomy 3; HHP2172 Physiology 2; or equivalent.

**Content** The subject aims to further develop students awareness of the requirements for osteopathic practice and to reinforce the case history-taking and examination skills taught in HHO2173 Osteopathic Science 3. By the end of the subject the students should be sufficiently competent in basic history taking, technique and patient handling skills to be ready to begin treating patients under supervision in year 3. content will include: Continuation of subject allowing further development of skills acquired during HHD1272 Clinical Practicum 2 & HHO1171 Osteopathic Science 1. To reinforce professional ethics and preparatory skills. To practice the skill of interviewing/case history taking. To demonstrate the application of basic clinical skills. Increasing observation of patient consultations with qualified supervision. Preparatory technique application within patient consultation. Practical workshops relating to consultation, basic clinical and osteopathic examination, including diagnosis and management. Reinforcement of basic physical examination skills.

**Required Reading** This is a clinical subject and has no specific required reading, however, relevant material is contained in the reading for HHO2173 Osteopathic Science 3.

**Subject Hours** Three hours workshops/tutorials per week for 46 weeks and sixteen hours external placement – total 154 hours.

**Assessment** Completion of required hours attendance, skills assessment and patient contacts (initial consultation and returning point) as recorded in clinical diary. Practical exam in case history taking.

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**HHU3175 CLINICAL PRACTICUM 5**

**Campus** City Flinders

**Prerequisite(s)** HHO3175 Osteopathic Science 5; HHA2173 Anatomy 3; HHP2172 Physiology 2; HHU2173 Clinical Practicum 3; or equivalent.

**Corequisite(s)** HHO3175 Osteopathic Science 5; HHA3275 Anatomy 5; HHP3174 Physiology 4; or equivalent.

**Content** The subject aims to further develop clinical skills from HHU1129 and HHU2129 Clinical Practicum 1 and 2. To introduce the students to treating patients under supervision in the teaching clinic. At the completion of the subject students will be able to apply skills learned in previous Osteopathic Science and Clinical Practicum subjects to the actual treatment of clinic patients, and will begin to apply diagnostic and treatment planning skills. content will include: Continuation of subject allowing further development of skills acquired in HHD1272 Clinical Practicum 2, HHU2173
Clinical Practicum 3, HHO1171 Osteopathic Science 1 & HHO2173 Osteopathic Science 3. Reinforcement of the increasing skills in osteopathic techniques, physical examination and clinical management. Development of skills in medical and osteopathic diagnoses and prognosis, including use of adjunctive investigations. Further development of patient interview skills. Continuing observation of patient consultation. Increasing participation as primary clinician in cases. Tutorials on osteopathic and medical clinical skills.

Required Reading This is a clinical subject and has no specific required reading. However, relevant material is contained in the reading for HHO3175 Osteopathic Science 5.

Subject Hours 6 hours a week for 40 weeks, plus 26 hours external placements – total 266 hours.

Assessment Completion of required hours attendances, skills Assessment and patient contacts (initial consult and returning patient); completion of required tasks as per clinical diary.

HHY1271 PATHOLOGY 1

Campus St Albans
Prerequisite(s) RBM1738 Cell Structure and Function or equivalent.

Content The introduction to clinical osteopathic practice, so as to make students aware of the expectations of them in clinic. Ethical and professional behaviour in the VU Osteopathic Medicine Clinic. Legal aspects of record keeping and account keeping in the clinical situation. Introduction to, and tutorials in the running of the reception at the VU Osteopathic Medicine Clinic. Introduction to the Rx Osteo practice management software package. Level two first aid certificate course, which will be held prior to the commencement of year 2.

Required Reading Students should have an understanding of the major points of the Federal Privacy Act (www.privacy.gov.au.) and of the Victorian Health Records Act 2001 (www.health.vic.gov.au.)

Recommended Reading Nil

Subject Hours Semester Two: Lecture – one hour per week. Tutorial – one hour per week.

Assessment Two-hour written examination

HHY2172 PATHOLOGY 2

Campus Flinders Lane
Prerequisite(s) HHY1271 Pathology 1; HHP1171 Physiology 1; HHA1171 Anatomy 1 or equivalent.

Content Common and life-threatening diseases affecting the Cardiovascular, Respiratory and Gastrointestinal systems will be discussed in Semester One. In semester 2 Endocrine, Haematological, Gynaecologic and Genito-Urinary tract disorders are discussed. Particular emphasis will be given to conditions that are of special interest to Osteopaths.

Required Reading To be advised by the Lecturer.


Subject Hours Two hours per week for one semester comprising one one-hour lecture and one one-hour tutorial/迪orkshop or equivalent.

Assessment Written examination, 100%.

HHY3174 PATHOLOGY 4

Campus City-Flinders
Prerequisite(s) Pass in HHY1271 Pathology 1; HHY2172 Pathology 2 or equivalent

Content The students will cover during the first semester, the content will include an introduction to the main diseases affecting the musculoskeletal system and other connective tissues of the body with an emphasis on metabolic, degenerative and autoimmune conditions commonly affecting bones and joints.

HHY3629 PATHOLOGY 2

**Campus** City Flinders

**Prerequisite(s)** HHY2619 Pathology 1; RBM1738 Cell Structure and Function; or equivalent.

**Content** The subject aims to further expand and develop concepts taught in HHY2619 Pathology 1. To study specific pathological processes occurring in the named organs or systems. Students will develop an understanding of major pathological processes affecting the musculoskeletal and nervous systems, their clinical presentations, and the body’s mechanisms for dealing with these pathologies. Content will include: Expansion of the microbiology covered in cell structure and function and the pathological concepts taught in HHY2619 Pathology 1 to include disease processes within specific named organs or systems. Development of the pathological process through dysfunction to disease; clinical presentation of named pathological processes; treatment and prognosis of named pathology. Conditions affecting the musculoskeletal system will be considered in Semester One, with pathologies of the nervous system and skeletal muscle considered in semester 2.


**Subject Hours** Two hours per week or equivalent for two semesters comprising lectures and tutorials/laboratory workshops.

**Assessment** Semester two: written examination, 100%;
and the nurses’ participation and role in this area. Credit Transfer Arrangements (including Articulation Pathways) if applicable

**Recommended reading**


**Required reading**


http://www.excelcare.com/

**Subject hours** Equivalent of 40 hours.

**Assessment**

Written assignment (1500 words) – 40%, annotated bibliography – including search strategies used – 40%, on-line participation in discussion groups 20%.

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**HNB1115 HEALTHCARE LAW AND ETHICS**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** This module introduces the student to core legal and ethical principles required for beginning professional practice within the Australian Health Care system and covers the following topics: Introduction to Australian Law, Working within the Law, Legal Concepts, Professional Regulation, The regulation of drugs, Life and Death Issues, Professional practice and the ethical perspective.

Module 2 This module introduces the student to: The interrelations between Commonwealth, state and private sector roles in health care, Health insurance and the funding of health services including: Healthcare funding, DRGs and Casemix, Pressures on the Pharmaceutical Benefits Schemes, The organisation of Health care services, Reforms of the Health Service.

**Required Reading**


**Recommended Reading**


**Subject Hours** Equivalent of 56 hours

**Assessment** Learning folio – 60%, oral presentation – 40%

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**HNB1133 FOUNDATIONS IN NURSING I**

**Campus** St Albans

**Prerequisite** Nil

**Content** on completion of this subject, students should be able toemonstrate beginning health assessment skills; practice assessment for mental health and family health; utilise interpersonal and professional communication skills required for interviewing for health assessment; incorporate the principles of occupational health and safety to the practice of nursing health assessment; practice the principles and process of infection control in the conduct of health assessment; document health assessment data clearly and accurately; adapt the health assessment process to the person in the community environment; apply critical thinking skills to the practice of nursing health assessment in the health care and community environment; integrate the relevant ethical and legal issues associated with the conduct of health assessment of the adult and the older person; incorporate relevant theoretical concepts from associated subjects in the planning, implementation and evaluation of the practice of nursing health assessment.

**Required Reading**


**Recommended Reading**

Subject Hours Equivalent of 62 hours organised according to teaching mode used. Assessment One, one hour written examination 50% two health assessment documents representing staged health assessment activities aligned with subject information input 50% physical examination skill testing Unsatisfactory [Satisfactory/Unsatisfactory]

HNB1134 FOUNDATIONS IN NURSING 2

Campus St Albans

Content The aim of this subject is to introduce and develop the students' knowledge base required for providing nursing care to persons who need assistance in meeting basic human needs. Knowledge for beginning understanding of the psychosocial dimensions of the health of families, and mental health nursing will also be introduced. The focus of the subject is the practice of fundamental nursing skills, family health, mental health, the scientific basis for nursing practice, and nursing care that meets the special needs of the adult and the older person experiencing compromised health and wellness. The fieldwork component of this subject is designed to enable the student to develop confidence in the practice of problem solving in the provision of fundamental health care for the individual in the community.


Subject Hours Equivalent of 57 hours organised according to teaching mode used.

Assessment One, two hour examination (75%); attendance and participation in simulated clinical workshop. Ungraded. [Satisfactory/Unsatisfactory]; Field work assignment (25%)

HNB1135 PROFESSIONAL NURSING 1

Campus St Albans

Prerequisite(s) Nil

Content An introduction to the Australian Nursing Council Incorporated (ANCI) Competencies, historical and contemporary influences on the development of nursing as a profession and nursing role, and structures within nursing that influence scope of practice and professional boundaries, and culture and diversity of care as components of nursing practice.


Subject Hours Equivalent of 40 hours organised according to teaching mode used. Assessment Achievement of subject objectives will be determined through the use of more than one type of assessment methodology. A combination of the following, or other appropriate methodologies will be used: written Assessment, reflective journal, learning folio, oral presentation. Seminar presentation – 40%, Essay – 2000 words, 60%.

HNB1232 NURSING PRACTICE 1: ACUTE CARE

Campus St Albans

Prerequisite(s) HNB1113 Foundations in Professional Practice

Content The content of this subject will be organised around the Functional Health Patterns, in particular: Activity & Exercise. Nutrition & Metabolism, Elimination and Cognition & Perception. Oxygenation and Oxygen administration; Cardiopulmonary Resuscitation; Drug calculations and the principles of administration of therapeutic substances, Skin integrity and wound care; Prevention of infection in acute care settings; Peri-operative nursing care; ‘No Lift’ policy; The ‘Activities of Daily Living’; Fluid and electrolyte balance; Use of technology in the clinical setting; and Care needs, including spiritual and religious needs, in relation to loss; end of life care, including death, grief, and palliation and including the needs of indigenous and other cultures.


Subject Hours Equivalent of 40 hours.

Assessment 1/2 hour Examination – 40%, Group Problem Based Learning exercise – 30%, Group focused literature review 30% Drug Calculation: Satisfactory/Unsatisfactory.

HNB1233 CLINICAL PRACTICUM 1: ACUTE CARE

Campus St Albans

Prerequisite(s) Foundations in Professional Practice

Content Students will be required to participate in the delivery of health care to patients in a variety of acute care settings under the supervision of a clinical teacher/preceptor. Using the ANCI Competencies, students’ clinical performance will be guided and assessed by experienced clinical teachers and/or preceptors. Credit Transfer Arrangements (including Articulation Pathways) if applicable.
**Required Reading**

**Recommended Reading**

**Recommended Reading**

**Subject Hours**
Equivalent of 56 hours.

**Assessment**
In order to be awarded a satisfactory grade for this subject, the student must successfully complete each of the following: satisfactory performance of holistic assessment of one client, as demonstrated by care planning documentation; demonstration of competence in selected skills, as defined by an examiner or tutor; comprehensive knowledge in line with the ANC Competencies as defined for a student at this stage of the course; satisfactory participation in reflective practice, as defined by completion of personal learning objectives and reflective journal entries during each week of clinical placement; and demonstration of safe and competent practice in line with the ANC Competencies as defined for a student at this stage of the course. Final assessment: Satisfactory/Unsatisfactory.

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**HNB1234 PROFESSIONAL NURSING 2**

**Campus**
St Albans

**Prerequisite(s)**
HNB1135 Professional Nursing 1

**Content**

**Subject Hours**
Equivalent of 40 hours organised according to teaching mode used.

**Assessment**
Critical observation exercise/discussion (50%). Essay (50%).

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**HNB1235 EVIDENCE BASED HEALTH CARE**

**Campus**
St Albans

**Prerequisite(s)**
Nil

**Content**
The aim of this subject is to consider the rationale for evidence based professional practice in nursing and midwifery, the skills that are needed to understand and appraise a systematic review and meta-analysis, and the approaches that can be used to implement research based practice. The focus will be on how to appraise and use research in clinical practice

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**Required Reading**

**Recommended Reading**

**Subject Hours**
Equivalent of 32 hours organised according to teaching mode used.

**Assessment**
Devise and conduct a systematic literature search strategy (not review) on a nominated clinical topic 50%; Appraisal of a systematic review or research paper on the nominated clinical topic 50%.

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**HNB2133 NURSING PRACTICE 2: ACUTE CARE**

**Campus**
St Albans

**Prerequisite(s)**
Nursing Practice 1; Human Bioscience 2: Body Structure and Function

**Content**
The content of this subject will be organised around the Functional Health Patterns, in particular: Activity & Exercise, Nutrition & Metabolism, Cognition and perception (neurolological dysfunction). Specific nursing skills to be taught will relate to parenteral medication administration; pain assessment and management; nutrition and metabolism maintenance including IV therapy; occupational health and safety protocols and knowledge of infection control principles in relation to the above; hospitalisation and acute episodic illness including the planning, implementing and evaluation of care with a variety of medical and surgical conditions, including respiratory, cardiac, vascular, and neurological; patient education processes and skills; and factors such as cultural and indigenous issues, legal and ethical issues, communication skills, and organisational factors will also be considered in the analysis of client care in clinical settings. Credit Transfer Arrangements (including Articulation Pathways) if applicable

**Required Reading**

**Recommended Reading**

**Recommended Journals**

**Recommended Websites**
Asthma Victoria: http://www.asthma.org.au/
Asthma Australia: http://www.asthmaaustralia.org.au/
Papscreen Victoria: http://www.papscreen.org/
Diabetes Australia: http://www.diabetesaustralia.com.au
Virtual Hospital: http://www.vh.org/

**Subject Hours**
Equivalent of 40 hours.

**Assessment**
Problem based learning (PBL) group exercise – 30%, 1½ hour Examination – 40%, case study related literature review – 30%, Drug Calculation: Satisfactory/Unsatisfactory.

**HNB2135 CLINICAL PRACTICUM 2: ACUTE CARE**

**Campus**
St Albans

**Prerequisite(s)**
Nursing Practice 1: Acute Care

**Content**
Students will be expected to develop an increasingly independent role in the delivery of nursing care to clients in acute medical/surgical settings. Students will be supervised by clinical teachers and/or preceptors during this period of experiential learning. The ANC Competencies will be used as an assessment framework by preceptors and clinical instructors. The students will be expected to focus on the themes they have been exposed to in the accompanying theory subject taken prior to this clinical practicum as outlined in the subject guide. Reflective practice will be encouraged in order to enable students to critically evaluate their clinical practice. The completion of University-specific client care documentation at intervals throughout the clinical placement will enhance the students’ clinical communication/documentation skills. Client-student ratios will be graduated throughout the placement and numbers will depend upon the level of acuity. Credit Transfer Arrangements (including Articulation Pathways) if applicable.

**Required Reading**

**Recommended Reading**

**HNB2135 NURSING PRACTICE 3: HEALTH & ILLNESS IN OLDER ADULTS**

**Campus**
St Albans

**Prerequisite(s)**
Nursing Practice 1: Acute Care

**Content**
The content of this subject will be organised around the Functional Health Patterns: Health Perception & Management, Activity & Exercise, Nutrition & Metabolism, Sleep & Rest, Cognition and Perception, Sexuality and Reproduction and Values and Beliefs.
This subject includes exploration of demographics of the Australian population and the contribution to society of older adults; ageism: stereotypes, myths and reality; the normal ageing process and adjustment to change; risk assessment and safety: includes issues relating to sensory changes, musculoskeletal changes and falls; considerations that impact on the wellbeing of the older person: includes promotion of sleep, nutrition, and exercise; dementia, depression and other disorders common in the older population: includes impact on the person and the family; factors that impact on care needs including culture, spirituality and sexuality; ethical and legal concerns: focus on the rights of the confused older person and alternatives to restraint; options and care services: includes accommodation choices, case management and community supports; supporting older adults and their families in the community; specific care needs of older people from a variety of cultural and sub-cultural groups, with a particular focus on Australia’s Indigenous population; and specific care needs of the older adult in acute care settings. Credit Transfer Arrangements (including Articulation Pathways) if applicable.

**Required Reading**
- Recommended Reading

**Subject Hours** Equivalent of 40 hours.

**Assessment**
- Essay (2500 words) – 60%, Individual portfolio – 40%.

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**HNB2137 ETHICS AND LEGAL STUDIES**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content**
- The aim of this subject is to introduce nursing and midwifery students to key concepts in ethics and law. The subject aims to develop an understanding of ethical and legal dimensions of practice with the opportunity to examine theory, principles and moral arguments related to professional practice and health care issues.

**Required Reading**
- Subject Hours Equivalent of 40 hours.
- Assessment Essay (2500 words) – 60%, Individual portfolio – 40%.

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**HNB2136 CLINICAL PRACTICUM 3: HEALTH AND ILLNESS IN OLDER ADULTS**

**Campus** St Albans

**Prerequisite(s)**
- Nursing Practice 1: Acute Care, Clinical Practicum 1: Acute Care

**Content**
- Drawing on experience from preceding subjects and clinical experiences, students will be expected to develop the foundation skills and knowledge for evolving independence in the delivery of nursing care to the older adult. The completion of a University-specific assessment tool will enhance the students’ clinical communication/documentation skills. Client-student ratios will be graduated throughout the placement depending on the capacity of the agencies providing the experience. Credit Transfer Arrangements (including Articulation Pathways) if applicable.

**Required Reading**
- Recommended Reading

**Subject Hours** Equivalent of 70 hours organised to teaching mode used.

**Assessment**
- Achievement of subject objectives will be determined through the use of more than one type of assessment methodology. A combination of the following, or other appropriate methodologies will be used: written assessment, reflective journal, learning folio, oral presentation.

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**HNB2233 NURSING PRACTICE 4: ACUTE CARE**

**Campus** St Albans

**Prerequisite(s)**
- Nursing Practice 2: Acute Care, Nursing Practice 3: Health & Illness in Older Adults

**Content**
- The content of this subject will be organised around the Functional Health Patterns, in particular: Nutrition & Metabolism, Elimination (gastrointestinal & renal); Movement and co-ordination (musculoskeletal skeletal trauma); Sexuality and reproduction (reproductive cancers). Specific nursing skills to be taught will relate to parenteral medication administration; complex care needs for those patients who are unable to care for their own health needs; elimination pattern; sexuality and reproduction pattern; occupational health and safety protocols and knowledge of infection control.

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principles in relation to the above; hospitalisation and acute episodic illnesses including the planning, implementing and evaluation of care used to treat clients with a variety of medical and surgical conditions, including gastrointestinal, renal, musculoskeletal trauma, reproductive cancers; patient education processes and skills; and factors such as cultural and indigenous issues, legal and ethical issues, communication skills, and organisational factors will also be considered in the analysis of client care in clinical settings. Credit Transfer Arrangements (including Articulation Pathways) if applicable.


**Subject Hours** Equivalent of 40 hours.

**Assessment** Problem based learning (PBL) group exercise 30%, 1½ hour Examination 40%, case study related literature review [1200 words.] 30%.

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**HNB2234 PRACTICUM 4: ACUTE CARE**

**Campus** St Albans

**Prerequisite(s)** Nursing Practice 2: Acute Care, Clinical Practicum 2: Acute Care, Nursing Practice 3: Health & Illness in Older Adults, Clinical Practicum 3: Health & Illness in Older Adults

**Content** Students will be expected to develop an increasingly independent role in the delivery of nursing care to clients in acute medical/surgical settings. Students will be supervised by clinical teachers and/or preceptors during this period of experiential learning. The ANC Competencies will be used as an assessment framework by preceptors and clinical instructors. The students will be expected to focus on the themes they have been exposed to in the accompanying theory subject taken prior to this clinical practicum as outlined in the subject guide. Reflective practice will be encouraged in order to enable students to critically evaluate their clinical practice. The completion of University-specific client care documentation at intervals throughout the clinical placement will enhance the students’ clinical communication/documentation skills. Client-student ratios will be graduated throughout the placement and numbers will depend upon the level of acuity.


**Subject Hours** Equivalent of 70 hours.

**Assessment** In order to be awarded a satisfactory grade for this subject, the student must successfully complete each of the following: satisfactory performance of holistic assessment of one client, as demonstrated by care planning document. Demonstration of competence in selected skills, according to specified criteria, and in line with the ANC Competencies as defined for a student at this stage of the course; satisfactory participation in reflexive practice, as defined by completion of personal learning objectives and reflexive journal entries during each week of clinical placement; and demonstration of safe and competent practice in line with the ANC Competencies as defined for a student at this stage of the course.

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**HNB2235 NURSING PRACTICE 5: MENTAL HEALTH & ILLNESS**

**Campus** St Albans

**Prerequisite(s)** HNB1133 Foundations in Nursing 1, HNB1134 Foundations in Nursing 2, APT1311 Psychology Across the Lifespan

**Content** The aim of this subject is to develop students’ knowledge, skills and attitudes in the promotion of mental health. To meet the needs of people with altered mental health status in institutional and community settings.


**Subject Hours** Equivalent of 40 hour.

**Assessment** 1½ hour Examination. Written critique on Quality Use of Medicines (2500 words) – 60%, drug calculation test: Satisfactory/Unsatisfactory.

**HNB2238 NURSING THEORY 5: MENTAL HEALTH & ILLNESS**

**Campus** St Albans

**Prerequisite(S)** Psychology Across the Lifespan

**Content** Concepts of mental health and illness and their application to mental health nursing; Structure and function of Victoria’s mental health services; Victorian Mental Health Act 1986; Concepts of mental health prevention, early intervention, and promotion; Common therapeutic modalities including psychopharmacology and electro convulsive therapy (ECT); Psychiatric nursing theory; Classification of mental illness (DSM-IV-TR, ICD-10); Mental health and illness research; Psychiatric illness, including anxiety disorders, depression, schizophrenia, schizoaffective, bi-polar, personality disorders; Mental health skills in interviewing, assessment and therapeutic relationships; Consumer participation; Concordance with medication taking; Mental health and illness research; Psychiatry of older age, including dementia and confusion; Risk assessment and crisis intervention; The planning, implementation and evaluation of psychiatric nursing care for individuals and families; Motivational interviewing; and, Culturally appropriate assessment and interventions including that for indigenous people.


**Recommended Websites** Home page of the Victorian Government mental health branch and provides numerous interesting and helpful links.


**Subject Hours** Equivalent of 80 hour.

**Assessment** Presentation – 20%, assignment (2500 words) – 40%, three hour Examination 40%

**HNB3101 RESEARCH FOR PRACTICE**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** Significance of research in nursing; links between nursing education, theory and practice; approaches to research process:
qualitative and quantitative designs including mixed and triangulation methods; classification and characteristics of exploratory, descriptive and explanatory studies; steps in the research process: identification of problem statement, literature review, theoretical framework, sampling, data collection and analysis using descriptive and inferential statistics; ethics and research; disseminating and applying nursing research; evaluate research reports and appraise a systematic review of the literature; basic statistics for appraisal of systematic reviews, including statistical significance, chance, probability, confidence intervals, odds ratios, numbers needed to treat and pitfalls in analysis; and how to appraise the professional application of a systematic review and meta analysis to an aspect of professional practice. Credit Transfer Arrangements (including Articulation Pathways) if applicable.

**Required Reading**

**Recommended Reading**

**Subject Hours** Equivalent of 40 hours.

**Assessment** Assignment [2000 words] – 50%, two hour examination – 50%.

**HNB3103 NURSING PRACTICE 6: CHILD, ADOLESCENT & FAMILY**

**Campus** St Albans.

**Prerequisite(s)** Human Bioscience 4, Nursing Practice 4: Acute Care, Nursing Practice 5: Mental Health & Illness.

**Content** The content of this subject will reflect the following: family centred care and the effects of hospitalisation on the child; the effect of different cultural, indigenous and ethnic backgrounds on the care and role of children and adolescents within the family and health care setting; growth and developmental stages of the child from infancy to adolescence; prevention and early intervention of sexually transmitted diseases (excluding HIV/AIDS); episodic illnesses and life events including the planning, implementing and evaluation of care used to treat clients with a variety of medical and surgical conditions, including diabetes and planned and unplanned pregnancy; medication issues in relation to child and adolescent nursing; infectious childhood diseases and their impact on the child’s health, including immunization programs available to various cultural and indigenous groups; basic life support for children; services available to assist adolescents work through individual health issues; the role of the nurse in child and adolescent nursing in relation to mandatory reporting requirements; Mental health issues of the older child and adolescent, including homelessness, abuse (physical, psychological, sexual), eating disorders, and the early onset of other mental health disorders; suicide, self-harm, substance abuse prevention and intervention in cultural groups including indigenous Australians; and family assessment. Credit Transfer Arrangements (including Articulation Pathways) if applicable.


**Subject Hours** Equivalent of 40 hours.

**Assessment** Two hour examination 60%, tutorial presentation [Case study] 20%, written summary of tutorial presentation 20%.
Final assessment for a student at this stage of the course. Personal learning objectives and reflective journal entries during participation in reflective practice, as defined by completion of defined criteria, and in line with the ANCI Competencies as demonstration of competence in selected skills, according to subject, the student must successfully complete each of the following:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Subject Hours</th>
<th>Equivalent of 40 hours</th>
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Recommended Reading


Recommended Journals

- American Journal of Nursing
- Australian Family Physician
- Australian Nurses Journal
- Australian Journal of Advanced Nursing
- British Medical Journal

Recommended Websites

- Australian Resuscitation Council: http://www.resus.org.au
- Heart Foundation (Australia): http://www.heartfoundation.com.au
- Asthma Victoria: http://www.asthma.org.au
- Asthma Australia: http://www.asthmaaustralia.org.au
- National Asthma Council: http://www.nationalasthma.org.au
- The Cancer Council: http://www.ncvx.org.au
- National Breast Cancer Centre: http://www.nbcc.org.au
- Papscreen Victoria: http://www.papscreen.org
- Diabetes Australia: http://www.diabetesaustralia.com.au
- International Diabetes Institute: http://www.idi.org.au
- Virtual Hospital: http://www.vh.org

Subject Hours Equivalent of 40 hours

Assessment: Written critique paper (2000 words) – 50%, scenario based clinical decision-making exercise – 50%.
Assessment In order to be awarded a satisfactory grade for this subject, the student must successfully complete each of the following: demonstration of competence in selected skills, according to specified criteria, and in line with the ANCI Competencies as defined for a student at this stage of the course; satisfactory participation in reflective practice, as defined by completion of personal learning objectives and reflective journal entries during each week of clinical placement; and demonstration of safe and competent practice in line with the ANCI competencies as defined for a student at this stage of the course. Final assessment: Satisfactory/ Unsatisfactory.

HNB3107 HEALTH & ILLNESS IN THE COMMUNITY

Campus St Albans
Prerequisite(s) Nil
Content The content of this subject will be organised around the Functional Health Patterns, in particular: Health Perception & Management (community, health education and health promotion). Epidemiological transition and its relationship to community nursing from the 19th to the 21st Century; Frameworks, for understanding community nursing in the 21st century; What the differences mean – comparing contemporary community nursing roles; The social determinants of health – understanding the mechanisms; Determining need – different approaches to needs assessment; Demographic data – what can it suggest about a community and its likely health needs?; Epidemiological data – revisiting the social determinants of health; Successful health education and promotion interventions – a world view; Using health education and health promotion strategies; Working with disadvantaged groups – whose needs?; Working across cultures, including with Aboriginal groups; Behavioural interventions and their strengths and limitations; Family and community assessment; Accessing community services; Current and future challenges facing community nurses; and Global and local prevention of infectious diseases, including, HIV/AIDS, bird flu, SARS.
Subject Hours Equivalent of 40 hours.
Assessment Assignment (2000 words) – 50%, two hour examination – 50%.

HNB3134 NURSING PRACTICE 6: HEALTH OF THE COMMUNITY

Campus St Albans
Prerequisite(s) HNB 1133 Foundation of Nursing 1, HNB1134 Foundation of Nursing 2, HNB 1135 Professional Nursing 1, HNB1234 Professional Nursing 2
Content The aim of this subject is to provide an important basis for professional nursing in all practice settings as it should enhance students understanding about health outcomes in the Australian population as a whole as well as subsections of that population, including Aboriginal Australians. Strategies aimed at improving the health of aggregates of people will also be examined for their effectiveness. In addition, students will gain an understanding of the approaches commonly used to assess the needs of a geopolitical area.

HNB3135 CLINICAL PRACTICUM 6: HEALTH OF THE COMMUNITY

Campus St Albans
Prerequisite(s) HNB3134 Nursing Practice 6: The Health of the Community
Content The aim of this subject is to further develop a number of process skills important in nursing as well as life-long learning and consolidate theory from the pre-requisite subject, The Health of Communities. In particular, students should gain a deeper appreciation of the factors that lead to variation in health outcomes by undertaking a community needs analysis.

Subject Hours Equivalent of 70 Hours organised according to teaching mode used.
Assessment Students will be required to undertake a group assignment that involves a population/community health concern. A total of 2000 words per student – 100%.
The aim of this subject is to further develop students' knowledge, skills and attitudes in the promotion of mental health. To meet the needs of people with altered mental health status in institutional and community settings. To provide culturally appropriate care to individuals from various cultural groups, including Aboriginal and Torres Strait Islanders.

**Required Reading**

**Recommended Reading**

**Websites**

**Assessment**
Seminar presentation 35%; Examination 65%
**HNB3138 NURSING PRACTICE 8: CHILD AND FAMILY HEALTH**

**Campus** St Albans

**Prerequisite(s)** SBM2527 Human Bioscience 4; HNB2333 Nursing Practice 4: Acute Care, HNB234 Clinical Practicum 4: Acute Care

**Content** The aim of this subject is to provide students with a broad overview and knowledge of family health from the perspective of a continuum across women’s health care and childbearing, formation of the family unit and growth of the child into an adolescent. The underpinning concept of this subject is to provide students with a framework in which to provide maternity and child health care from a family-centred approach.

**Required Reading**

**Recommended Reading**

**Subject Hours** Equivalent of 70 hours organised according to teaching mode used.

**Assessment**
- One 3-hour written examination 60%
- Written essay (1500 words) – 40%

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**HNB3139 CLINICAL PRACTICUM 8: CHILD AND FAMILY HEALTH**

**Campus** St Albans

**Prerequisite(s)** SBM2527 Human Bioscience 4, HNB8233 Nursing Practice 4: Acute Care, HNB234 Clinical Practicum 4: Acute Care

**Content** The aim of this subject is to enable the student to provide care across the health continuum to women, their families and the child from birth through to adolescence. Furthermore, the focus of health care provision will be on a framework in which to provide maternity and child health care from a family-centred approach.

**Required Reading**

**Recommended Reading**
Required Reading


Recommended Reading


HNB3228 NURSING PRACTICE 8 (ELECTIVE): CHILD, ADOLESCENT & FAMILY

Campus: St Albans

Prerequisite(s): Nursing Practice 6: Child, Adolescent & Family

Content: Review of principles of growth and development in relation to acute paediatric nursing, such as the sick child and adolescent in a variety of settings; Health promotion and societal concerns of childhood and adolescence such as AIDS, behaviour problems, sexual assault; The more common child and adolescent genetic and development disorders requiring short/long term nursing interventions/management; A variety of conditions including prevention strategies encountered in children and adolescents including childhood accidents and trauma, and sexually transmitted disease prevention; and Adapt aspects of the above to various cultural and indigenous groups.

Required Reading


Recommended Reading


HNB3230 CLINICAL PRACTICUM 8 (ELECTIVE): MENTAL HEALTH & ILLNESS

Campus: St Albans

Prerequisite(s): Nursing Practice 5: Mental Health & Illness

Content: Students will be provided with opportunities to practise a range of mental health nursing skills, including observing and participating in psychotherapeutic approaches to care, such as cognitive behaviour therapy, and group therapy; observing and
assisting in the prevention and therapeutic management of aggression; observing and participating in case management; reflecting on his or her practices in the prevention and management of aggression; and developing an understanding of mental health policy and issues related to mental health service provision.

Required Reading

Recommended Reading

HNB3237 RESEARCH PRACTICE
Campus St Albans
Prerequisite(s) Nil
Content The aim of this subject is to provide fundamental knowledge in the research process. The subject builds upon previous knowledge and skills gained in Evidence Based Health Care to develop an understanding of the relationship between nursing research and nursing practice. It aims to provide a broad range of research designs and methodologies that are currently utilised by nurse researchers and to validate and refine existing nursing knowledge in order to improve nursing practice.

Required Reading

Recommended Reading
Australian Nursing Federation (1997), Standards for Research for the Nursing Profession, ANF, Melbourne

Assessment
Presentation 30%, multiple choice questions 30%, research paper 30%

HNB3236 TRANSITION TO PROFESSIONAL PRACTICE
Campus St Albans
Prerequisite(s) Nil
Content The topics to be taught in this subject are: the health care system and various forces influencing health care delivery including health policy; organisational structures and functions; leadership, fellowship; principles of management and management of resources; organisational culture; effective communication strategies, problem solving, prioritising and decision making; quality improvement and outcomes; and consumer consultation; professional role expectation, employer and employee relationship; and development of a CV and interview techniques. Credit Transfer Arrangements [including Articulation Pathways] if applicable.

Required Reading

Recommended Reading

Subject Hours Equivalent of 40 hours.
Assessment Assignment – 1,500 words: 40% Critically appraise a specific nursing research article related to the subject aims. Examination – two hours: 60%. This will be a combination of multiple choice questions and short answer questions.
HNB3238 NURSING PRACTICE 9: (ELECTIVE) ACUTE CARE

Campus St Albans

Prerequisite(s) HNB3134 Nursing Practice: Health of the Community, HNB3135 Clinical Practicum 6: Health of the Community, HNB3136 Nursing Practice 7: Mental Health & Illness, HNB3137 Clinical Practicum 7: Mental Health and Illness, HNB3138 Nursing Practice 8: Child and Family Health, HNB3139 Clinical Practicum 8: Child and Family Health.

Content The aim of this subject is to consolidate students’ knowledge and skills to deliver safe nursing care to clients requiring acute nursing in medical/surgical areas. Students will be expected to utilize critical thinking and problem solving skills and to integrate all knowledge previously acquired in the course to demonstrate the skills necessary to practice safely as a graduate nurse at beginning level.


Recommended Journals American Journal of Nursing, Australian Family Physician, Australian Nurses Journal, Australian Journal of Advanced Nursing, British Medical Journal, Contemporary Nurse, Image, Journal of the American Medical Association, Journal of Advanced Nursing, Medical Journal of Australia, Nursing 93+ [In addition, students will be provided with more specific journals or articles under set topic areas].


Subject Hours Equivalent of 40 hours organised according to teaching mode used.

Assessment Problem based learning (PBL) exercise x 1: 20% This exercise will assess the student’s ability to integrate the relevant theoretical concepts and problem based learning skills to a case study of a client requiring acute care intervention. Simulated patient care situation: 20% Utilising the case study client in a simulated setting, the student will be required to demonstrate competence in assessment and prioritisation of the client’s health care needs. Skills performance assessment Ungraded (Satisfactory/Unsatisfactory) The student’s achievement of competence in the selected clinical skills will be assessed in the simulated setting prior to the commencement of the first acute care clinical placement. Self-testing exercises online (not graded) A number of self-testing exercises related to clinical skill and knowledge development will be placed online using WebCT to assist student preparation and learning. Examination: 60%. The student’s ability to demonstrate an understanding of knowledge, and to apply it to various acute care situations will be assessed. Students’ comprehension and analytical skills will be assessed through the interpretation of specific case studies, requiring explanation and prioritisation of client management and with due regard to the role of other health care professionals.

HNB3239 NURSING PRACTICE 9: (ELECTIVE) MENTAL HEALTH & ILLNESS

Campus St Albans

Prerequisite(s) HNB3134 Nursing Practice: Health of the Community, HNB3135 Clinical Practicum 6: Health of the Community, HNB3136 Nursing Practice 7: Mental Health & Illness, HNB3137 Clinical Practicum 7: Mental Health and Illness, HNB3138 Nursing Practice 8: Child and Family Health, HNB3139 Clinical Practicum 8: Child and Family Health.

Content The aim of this subject is to develop students’ knowledge, skills and attitudes in order to promote mental health and to meet the needs of people with altered mental health status in institutional and community settings. To consolidate previously acquired knowledge in mental health nursing.


Undergraduate Subject Details

HNB3241 Nursing Practice 9: (Elective) Child and Family Health

Campus St Albans

Prerequisite(s) Nursing Practice 6: Health of the Community, Clinical Practicum 6: Health of the Community, Nursing Practice 7: Mental Health and Illness, Clinical Practicum 7: Mental Health and Illness, Nursing Practice 8: Child and Family Health and Clinical Practicum 8: Child and Family Health

Subject Aims The aim of this subject is to develop students' knowledge and skills to meet the needs of children and families in a paediatric environment. It aims to emphasize on the growth and development of children and families, including common paediatric conditions and specific needs of sick children and their families.

Content Review of principles of growth and development in relation to acute paediatric nursing, such as sick child and adolescent in hospital or community, the effects of hospitalization, common medical/surgical conditions, long term/terminal illness, the effects of the child’s illness on the family. Communication with children, adolescents, the families. This includes communication with families from diverse cultural backgrounds. Health promotion and societal concerns of childhood and adolescence such as substance abuse, AIDS, child abuse, suicide.

Methods of Teaching The focus of teaching-learning approaches is to draw upon and extend the students’ knowledge in lectures, tutorials, seminars, group work and presentation. A range of multi media will be utilised to enhance and stimulate discussion.


Subject Hours Equivalent to 40 hours distributed according to the teaching mode used.

Assessment Case management study, comprising: Interview and assessment 40% (1900-2100 words); Case management report 60% (2800-3000 words).

HNB3242 Nursing Practice 9: (Elective) Health & Illness in Older Adults

Campus St Albans

Prerequisite(s) Nursing Practice 6: Health of the Community, Clinical Practicum 6: Health of the Community, Nursing Practice 7: Mental Health and Illness, Clinical Practicum 7: Mental Health and Illness, Nursing Practice 8: Child and Family Health and Clinical Practicum 8: Child and Family Health

Subject Aims The aim of this subject is to build upon the student’s awareness and knowledge about special health issues older people by examining the key issues in gerontological nursing and the essential elements of planning care that is creative, sensitive and effective for older people.

Content The physiological and psychosocial consequences of changes for physical and mental health for older people; implications for of the special needs of older people for assessment and clinical decision making; assessment considerations including use of specific assessment tools, refinement of clinical assessment skills; the clinical management of common issues experienced by older people for example management of pain, bowel management, promotion of urinary continence, polypharmacy.

Methods of Teaching A range of teaching and learning approaches will be used in this subject, including lectures, tutorials, role play activities, and group discussion. Audiovisual materials will be used to explore some topics. Students will be encouraged to actively participate in their own learning.


Subject Hours Equivalent of 40 hours organised according to teaching mode used.

Assessment Assignment 3000 words – 60%; class presentation 1500-2000 words – 40%.
FACULTY OF HEALTH, ENGINEERING AND SCIENCE

HNB3243 CLINICAL PRACTICUM 89: (ELECTIVE) ACUTE CARE

Campus St Albans
Prerequisite(s) Nursing Practice 7: Acute Care, Clinical Practicum 7: Acute Care

Content Utilising experience from the previous acute care placement, students will be expected to develop an increasingly independent role in the delivery of nursing care to clients in an acute medical/surgical setting and be capable of planning implementing and evaluating care with minimal supervision. Students will be supervised by clinical teachers and/or preceptors during this period of experiential learning. The ANCI Competencies will be used as an assessment framework by preceptors and clinical instructors. Reflective practice will be encouraged in order to enable students to critically evaluate their clinical practice. A debriefing session once or twice a week will provide an opportunity to share and reflect on their progress with their peers. Client-student ratios will be graduated throughout the placement and numbers will depend upon the level acuity.


Assessment In order to be awarded a satisfactory grade for this subject, the student must successfully complete each of the following: satisfactory performance of holistic assessment of one client, as demonstrated by care planning documentation; demonstration of competence in skills in line with those required for a graduate nurse at beginning level, in line with the ANCI competencies (1998); satisfactory participation in reflective practice, as defined by completion of personal learning objectives and reflective journal entries during each week of clinical placement; and Demonstration of safe and competent practice in line with that required for a graduate nurse at beginning level, and in line with the ANCI competencies (1998).

HNB3244 CLINICAL PRACTICUM 9: (ELECTIVE) MENTAL HEALTH & ILLNESS

Campus St Albans
Prerequisite(s) Nursing Practice 6: Health of the Community, Clinical Practicum 6: Health of the Community, Nursing Practice 7: Mental Health and Illness, Clinical Practicum 7: Mental Health and Illness, Nursing Practice 8: Child and Family Health and Clinical Practicum 8: Child and Family Health

Subject Aims The aim of this subject is to develop students’ knowledge, skills and attitudes in mental health practice using a range of psychotherapeutic interventions. To consolidate previously acquired clinical skills in mental health nursing. To prepare students to be beginning mental health practitioners.

Methods of Teaching Students will be expected to meet regularly with their mentor to review their progress in meeting the intended learning objectives of the subject.


Subject Hours 210 hours of clinical experience, comprising of five days per week, seven hours per day for six weeks.

Assessment Achievement of clinical competencies (Ungraded: Pass/Fail).
HNB3245 CLINICAL PRACTICUM 9: (ELECTIVE) CHILD AND FAMILY HEALTH

Campus St Albans
Prerequisite(s) Nursing Practice 6: Health of the Community, Clinical Practicum 6: Health of the Community, Nursing Practice 7: Mental Health and Illness, Clinical Practicum 7: Mental Health and Illness, Nursing Practice 8: Child and Family Health and Clinical Practicum 8: Child and Family Health.

Subject Aims The aim of this subject is to give students the opportunity to practice clinical skills in caring for the child and family in a paediatric clinical environment. It is designed to help students make the often difficult transition from study to work practice. Students are therefore given the opportunity to consolidate their knowledge of the principles of paediatric nursing and skills acquired throughout the course. It also aims to provide students with the opportunity to develop and apply management skills in the delivery of paediatric nursing care.

Content Students will undertake 210 hours of clinical practice in an acute paediatric setting.

Methods of Teaching A clinical nurse will be appointed by the School of Nursing on a ratio of 1:8 to supervise students during their clinical practicum experience. Alternatively, a preceptorship approach may be used, depending on the requirement of the agency at which the student is placed.


Subject Hours 210 hours of clinical experience, comprising of five days per week, seven hours per day for six weeks.

Assessment Achievement of the specified ANCI Competencies (Ungraded: Pass/Fail).

HNB3246 CLINICAL PRACTICUM 9: (ELECTIVE) HEALTH & ILLNESS IN OLDER ADULTS

Campus St Albans
Prerequisite(s) Nursing Practice 6: Health of the Community, Clinical Practicum 6: Health of the Community, Nursing Practice 7: Mental Health and Illness, Clinical Practicum 7: Mental Health and Illness, Nursing Practice 8: Child and Family Health and Clinical Practicum 8: Child and Family Health.

Subject Aims The aim of this subject is to offer the student the opportunity to apply their knowledge and participate in the delivery of care of older people in a setting which offers a range of opportunity – in particular sub-acute, rehabilitation, community and residential aged care.

Content The student will undertake 210 hours of clinical practice and engage in reflective practice with a mentor.

Methods of Teaching A clinical nurse will be appointed by the School of Nursing on a ratio of 1:8 to supervise students during their clinical practicum experience. Alternatively, a preceptorship approach may be used, depending on the requirement of the agency at which the student is placed.


Subject Hours 210 hours of clinical experience, comprising of five days per week, seven hours per day for six weeks.

Assessment Achievement of the specified ANCI Competencies (Ungraded: Pass/Fail).

HNB3247 NURSING PRACTICE 8 (ELECTIVE): CHILD, ADOLESCENT & FAMILY

Campus St Albans
Prerequisite(s) Nursing Practice 6: Child, Adolescent & Family

Content Review of principles of growth and development in relation to acute paediatric nursing, such as the sick child and adolescent in a variety of settings; health promotion and societal concerns of childhood and adolescence such as AIDS, behaviour problems, sexual assault; the more common child and adolescent genetic and development disorders requiring short/long term nursing interventions/management; a variety of conditions including prevention strategies encountered in children and adolescents including childhood accidents and trauma, and sexually transmitted disease prevention; and adapt aspects of the above to various cultural and indigenous groups.


HNB3248 CLINICAL PRACTICUM 8 (ELECTIVE): CHILD, ADOLESCENT & FAMILY

Campus St Albans
Prerequisite(s) Nursing Practice 6: Child, Adolescent & Family

Content Students will undertake 140 hours of clinical practice in a range of institutional, residential or community health care settings.

Required Reading Hockenberry-Eaton, M., Wilson, D., &

**Recommended Reading**


**Subject Hours** 140 hours of clinical experience.

**Assessment** In order to be awarded a satisfactory grade for this subject, the student must successfully complete each of the following: demonstration of competence in skills in line with those required for a graduate nurse at beginning level, in line with the ANCI competencies (1998); satisfactory participation in effective practice, as defined by completion of personal learning objectives and reflective journal entries during each week of clinical placement; and Demonstration of safe and competent practice in line with that required for a graduate nurse at beginning level, and in line with the ANCI competencies (1998). Final assessment: Satisfactory/Unsatisfactory.

**Recommended Reading**

Clinical Practicum 3: Health & Illness in Older Adults, Clinical Practicum 3: Health & Illness in Older Adults

Content The student will undertake clinical practice and engage in reflective practice with a mentor/clinical educator.

**Required Reading**

**Recommended Reading**

**Subject Hours** Equivalent of 140 hours of clinical experience.

**Assessment** In order to be awarded a satisfactory grade for this subject, the student must successfully complete each of the following: demonstration of competence in skills in line with those required for a graduate nurse at beginning level, in line with the ANCI competencies (1998); satisfactory participation in effective practice, as defined by completion of personal learning objectives and reflective journal entries during each week of clinical placement; and demonstration of safe and competent practice in line with that required for a graduate nurse at beginning level, and in line with the ANCI competencies (1998). Final assessment: Satisfactory/Unsatisfactory.

**HNB3250 CLINICAL PRACTICUM 9: CONSOLIDATION**

**Campus** St Albans

**Prerequisite(s)** Nursing Practice 3: Health & Illness in Older Adults, Clinical Practicum 3: Health & Illness in Older Adults

Content The student will undertake clinical practice and engage in reflective practice with a mentor/clinical educator.

**Required Reading**

**Recommended Reading**

**Subject Hours** Equivalent of 140 hours of clinical experience.

**Assessment** In order to be awarded a satisfactory grade for this subject, the student must successfully complete each of the following: demonstration of competence in skills in line with those required for a graduate nurse at beginning level, in line with the ANCI competencies (1998); satisfactory participation in effective practice, as defined by completion of personal learning objectives and reflective journal entries during each week of clinical placement; and demonstration of safe and competent practice in line with that required for a graduate nurse at beginning level, and in line with the ANCI competencies (1998). Final assessment: Satisfactory/Unsatisfactory.

**HNB3249 CLINICAL PRACTICUM 8 (ELECTIVE): HEALTH & ILLNESS IN OLDER ADULTS**

**Campus** St Albans

**Prerequisite(s)** Nursing Practice 3: Health & Illness in Older Adults, Clinical Practicum 3: Health & Illness in Older Adults

Content The student will undertake clinical practice and engage in reflective practice with a mentor/clinical educator.

**Required Reading**

**Recommended Reading**

**Subject Hours** 140 hours of clinical experience.

**Assessment** In order to be awarded a satisfactory grade for this subject, the student must successfully complete each of the following: Demonstration of competence in skills in line with those required for a graduate nurse at beginning level, in line with the ANCI competencies (1998); Satisfactory participation in reflective practice, as defined by completion of personal learning objectives and reflective journal entries during each week of clinical placement; and demonstration of safe and competent practice in line with that required for a graduate nurse at beginning level, and in line with the ANCI competencies (1998). Final assessment: Satisfactory/Unsatisfactory.

**HNB3251 NURSING THEORY 8: (ELECTIVE) ACUTE CARE**

**Campus** St Albans

**Prerequisite(s)** Nursing Practice 7: Acute Care

Content The content of this subject will be organised around the Functional Health Patterns, in particular: Cognition & Perception (endocrine disorders complex wounds). This subject will cover the nursing management of patients in the acute care setting including: Co-morbidities, complex acute or chronic illnesses, including the management of patients with multiple sclerosis, autoimmune, endocrine disorders (excluding diabetes), advanced cardiac conditions, spinal injuries and infectious diseases in acute care settings; Focused assessment, planning, implementation and evaluation of nursing interventions of patients with complex care needs and their significant others; Complex wound assessment and interventions; Chronic or complex pain assessment and management; The helping role of the nurse; A problem based learning approach will facilitate students in the formulation and implementation of appropriate interventions in the management of clients experiencing illness. Students are expected to develop knowledge and skill appropriate for a graduate nurse at the beginning level; Critique of evidenced based nursing; A functional health patterns approach will be used as organising framework for client assessment; and Factors such as cultural and indigenous issues, legal and ethical issues, communication skills, and organisational factors will also be considered in the analysis of client care in acute medical/surgical settings.

**Required Reading**

**Recommended Reading**

**Subject Hours** Equivalent of 40 hours.

**Assessment**
Case study assignment (2000 words) – 50%. Project (2000 words.) 50%

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**HNH4312 MINOR THESIS A**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** The aim of this subject is to provide students with the opportunity to plan for successful conduction of research. The major emphasis of this subject will focus on the planning and development of the research proposal. The topics covered in this subject will result from negotiation between the student and the supervising lecturer and will be influenced by the needs of individual students. Topics which would be expected to be considered include the role of a literature review, how to clarify a research problem, method(s) of inquiry relevant to the problem and writing a research proposal.

**Required Reading** Nil

**Subject Hours** Students will meet with a supervisor on a regular basis. The nature of the work required could be estimated as equivalent to three contact hours per week.

**Assessment** Research proposal.

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**HNH4313 MINOR THESIS B (PART-TIME)**

**Campus** St Albans

**Prerequisite(s)** HNH4312 Minor Thesis A; or equivalent.

**Content** The minor thesis is intended to provide students with an opportunity to undertake independent inquiry into an area of personal interest and applicable to the profession of nursing. The thesis will be a research paper of not less than 10,000 words and not more than 20,000 words. It will report on independently conducted research which demonstrates a student’s ability to clearly define a problem, to undertake a detailed literature search and review the relevant theoretical and practical literature on the topic area. Good data selection, collection and analysis skills should also be demonstrated. The thesis should involve a high standard of written communication skills. The topic which is chosen should allow the candidate to develop a methodology and to apply it to an appropriate problem or situation. It is intended that the topic chosen for investigation will be in consultation with an appropriate supervisor who will oversee the conduction of the research. Course regulations guiding the conduct and supervision of the research will be developed in the Course Rules and Regulations and will reflect the regulations to be developed by the Faculty Graduate Studies Research Committee.

**Required Reading** To be advised by lecturer.

**Subject Hours** To be arranged with supervisor.

**Assessment** A thesis of a minimum of 10,000 words and maximum of 20,000 words.

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**HNH2010 PRACTICE ALLEGIANCES**

**Campus** St Albans

**Prerequisite(s)** Nil

**Corequisite(s)** JAC0216 With Woman: Rethinking Pain.

**Content** All students will follow through in a core capacity a minimum of ten women experiencing childbirth. Assessment: assessment of the woman; Culture & Family; Pain Assessment; Fetal Assessment; Progress of the birth process; Support structures; Environment. Midwifery care in partnership during birthing women: Comfort; Orientation to environment; Partnership, dignity and respect; Support and position; Mobilization; Pharmacological methods of pain control; Non pharmacological methods of pain control. Support: Communication; Counselling; Partnership with woman. Hygiene: Showers Bathing; Perineal care; Mouth & hand washing. Nutrition & Elimination: Breastfeeding with emphasis on providing extra support; Fluid balance; Energy; IV Infusion & Infusion Pumps; Urinalysis. Ethico-Legal Issues: Documentation; Informed Consent; Maintenance of Dignity, privacy and respect; Relevant components of the Scope of midwifery practice; Advocacy; Loss. Environment: Technology; Maternity Team. Obstetrical Matters: Induction of labour; Instrumental birth; Mal presentations; Multiple birth; Epidural Anaesthesia; Episiotomy & Repair of perineum; Principles of asepsis.

**Required Reading** To be advised by subject lecturer.


**Subject Hours** A practice subject of 208 hours for one semester.

**Assessment** Practice assessment based on ACMI competency standards. Partnership log, focussing on contact and follow-through of women Reflective journal.

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**HNM2020 TOWARDS A MIDWIFE SELF**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** All students will ‘follow through’ in a care capacity within a maternity unit, a minimum of ten women experiencing childbirth. Emphasis on: reflection on self and the experiences that influence the development of the concept of self; application of skills and techniques for the development of effective interpersonal relationships in midwifery. Continuing to develop: personal and professional philosophies and how they influence one’s perception of midwifery as well as the midwives’ role and function; carving a new identity: going from a known world to an unknown world; connecting with the passion of midwifery; exploring strategies for enhancing the vision of midwifery. In partnership with women: work with a variety of women’s transition from pregnancy to parenthood; work with women in a variety of settings and models including as a ‘named’ midwife.

**Required Reading** To be advised by subject lecturer.


**Subject Hours** A practice subject of 208 hours for one semester.

**Assessment** Practice assessment based on ACMI competency standards. Partnership log, focussing on contact and follow-through of women and reflective journals.

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**HNM3011 WOMEN’S HEALTH PRACTICE**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** Within a framework of working with woman in partnership, the role of the midwife providing primary and collaborative care for women throughout the reproductive lifespan will be explored under the several subheadings. Undertaking a comprehensive women’s health assessment. Guidelines for practice and skill development. Primary care midwife promoting women’s wellness: strategies for promoting; breast awareness and mammography screening (mammochek program); regular cervical screening; healthy diet, regular weight-bearing exercise, pelvic floor exercises. Midwife providing women’s centred collaborative care in the acute care setting: Physical and psychological pre and post operative considerations; Caring for women experiencing diagnostic & therapeutic procedures for reproductive and urinary conditions reflecting the specific care requirements; Caring for women experiencing diagnostic & therapeutic procedures for breast related conditions reflecting the specific care requirements; Caring for women experiencing treatment for cancers of the reproductive or breast related conditions; Consequences of chemotherapy to be taken into consideration when planning care for women.

**Required Reading** To be advised by subject lecturer.


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**HNM3010 NAVIGATING CHILDBEARING OBSTACLES**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** All students will ‘follow through’ in a care capacity within a maternity unit, a minimum of five women with obstacles in childbearing. Care and assessment during pregnancy, labour and birth and after birth: assessment for malpresentation and malposition; Conduct vaginal examination; Artificial rupture of membranes; Episiotomy and perineal care; Breastfeeding problems; Dynamap and blood pressure monitoring; Blood sugar monitoring. Use of technology: Ultrasound use; Cardiotograph monitoring;...
HNM3020 WORKING WITH BABIES

Campus St Albas

Prerequisite(s) Nil

Content Neonatal Nursery Environment: Cots; Oxygen saturation equipment; Assisted Ventilation Equipment; Monitors; Stress management strategies. Care of the Baby: Gestational, physical & psychosocial assessment; Facilitation of Growth & Development; Stimulation; Rest; Touch; Comfort/pain control; Position; Kangaroo Care; Oxygenation; Resuscitation; Oxygen therapy; CPAP; Surfactant Therapy; Oxygen saturation; Blood gases; Nutrition & Elimination; Breast feeding – expand on previous knowledge; Gastric feeds; IV therapy; Breast milk substitutes; Fluid Balance & electrolytes; Specimen collections;Phototherapy; Immunity; Universal precautions; Hygiene; Temperature; Neutral thermal environment. Care of the family: Support & counselling; Involvement in care and decision making; Education; Transition to parenthood; Transition from hospital to home.

Required Reading To be advised by subject lecturer.


Subject Hours A practice subject of 208 hours for one semester.

Assessment Practice assessment based on ACMI competency standards. Partnership log, focussing on contact and follow-through of sick baby; reflective journals.

HNM7006 MIDWIVES WORKING WITH DIVERSITY

Campus Distance Education

Prerequisite(s) Nil

Content Module One: Framing the subject: Knowing self; Feminist and Humanistic principles in working with diversity; Defining sexuality and its relationship to childbirth. Module Two: Cultural diversity: Cultural safety/sensitivity; Aboriginality; Women from diverse cultural and ethnic backgrounds; Spiritual differences & cultural practices. Module Three: Social justice: Social justice, equity and access; Poverty and maternity; homelessness; physical and sexual abuse; chemical dependency.


Subject Hours Thirty-six hours for one semester, conducted via flexible delivery.

Assessment A combination of the following, or other appropriate methodologies will be used: examination; written assignment; reflective journal; and learning folio.

HNM7007 CHILDBEARING OBSTACLES

Campus Distance Education

Prerequisite(s) Nil

Content Module One: Pregnancy Obstacles: Collaborative role of midwife; Anaemia; Blood disorders; Infections; Miscarriage; Intra-uterine growth restriction; Fetal death in utero; Antepartum haemorrhage; Variations in blood pressure; Diabetes; Chemical dependency; Surgical conditions. Module Two: Midwifery and Obstetric Care: Positions, lie and presentations of the fetus; Preterm labour; Induction and augmentation of labour; Inco-ordinated uterine action; ‘Intervention cascade’; Medical technology; ultrasound; cardiotocography; epidural analgesia; forceps & ventouse; caesarean section. Module Three: Unexpected Obstacles During Labour & Birth: Cord presentation and prolapse; Fetal distress; Primary postpartum haemorrhage; Shoulder dystocia; Maternal shock and collapse. Module Four: Maternal Obstacles in First Weeks After Birth: Breast feeding challenges; Pyrexia; Secondary postpartum haemorrhage; Haematomas; Post-caesarean section: extra care; Mood variation: psychological distress; Implications for woman and midwifery practice.

Required Reading To be advised by subject lecturer.

HNM7113 FOUNDATIONS IN MIDWIFERY PRACTICE

Campus St Albans
Prerequisite(s) Nil

Content Module 1 The subject will include the following content:

Functional Health Patterns, emphasis on health perception and management, clinical reasoning process, occupational health and safety, Procedural hand washing and asepsis, the complete midwifery health history and general survey, general health assessment, assessment of family health, assessment of mental health status, cultural assessment.

Module 2 Defining the role of the midwife in contemporary practice, exploring the desirable attributes of a midwife, exploring the philosophical basis underpinning the role of the midwife in contemporary midwifery practice, being with woman, woman centeredness, working in partnership, establishing relationships with childbearing women. Explore the art of midwifery, relationship, communication, boundaries of care, midwife as primary carer, midwife’s role in collaborative practice, establishing a partnership, philosophy of care.


Subject Hours 140 hours – 60 hours theory, 80 hours block clinical placement.

Assessment One 1½ hour written examination: 40%, evaluation of health assessment skills and clinical reasoning 40%, annotated bibliography on professional issues: 20%; demonstration of safe and competent practice according to this stage of the course. Competencies as defined for a student at this stage.

HNM7115 MIDWIFERY STUDIES 1: THE CHILDBEARING JOURNEY

Campus St Albans
Prerequisite(s) Nil

Content This subject will include: pre-conception, sexuality, fertility/infertility, preconception health, environmental issues. The foetus and the woman during pregnancy: embryology, foetal growth & development, physiological and psychosocial alteration & adaptation during pregnancy, maintenance of health, principles of optimal nutrition for the woman and her baby, pregnancy assessment. Labour and birth: physiological and psychosocial alteration and adaptation during labour and birth, facilitating a normal process of birth, supporting a woman during labour, continuity of care, assessment, reception of the newborn. Skill development and application of principles in basic midwifery care:
Assessment, history taking, interviewing techniques, data collection and recording (using women-held records); Introduction to clinical paths: health assessment and physical examination skills – pregnancy assessment including abdominal examination – labour assessment including vaginal examination. Introduction to primary health counseling: guidelines for undertaking primary health counseling; facilitating informed decision making; accessing relevant information; engaging in health promotion activities; communication; counseling; partnership with woman. Assessment in labour: assessment of the woman, culture & family, pain assessment, foetal assessment, progress of the birth process. Midwifery care in partnership during birthing: comfort; orientation to environment; partnership; dignity and respect; support and position; mobilization.

**Required Reading**


**Recommended Reading**


**Subject Hours**

175 hours – 144 hours theory, – 10 hours self directed. Assessment 3-hour examination – 60%, Essay [1500 words] – 40%.
assessment, progress of the birth process. Midwifery care in partnership during birthing: comfort; orientation to environment; partnership, dignity and respect; support and position; mobilization.

**Required Reading**

**Recommended Reading**

**Subject Hours**
70 hours – 60 hours theory, 10 hours self-directed. **Assessment** Three-hour examination – 60%, Essay [1500 words] – 40%.

**HNMT201 MIDWIFERY STUDIES 2: THE CHILDBEARING JOURNEY**

**Campus St Albans**
**Prerequisite(s)**
Midwifery Studies 1: The Childbearing Journey
**Content**

**Required Reading**

**HNMT202 MIDWIFERY PRACTICE 2: THE CHILDBEARING JOURNEY**

**Campus St Albans**
**Prerequisite(s)**
Midwifery Studies 1: The Childbearing Journey
**Co-Requisite(s)**
Midwifery Studies 2: The Childbearing Journey
**Content**
Supervised midwifery practice will include: interviewing and history taking techniques; reflection in and on action; journal writing; and application of principles of communication. In partnership with the woman and under supervision: Assessment of the woman and her baby; working with a woman giving birth; working with a woman to give nourishment to her baby; working with a woman to care for herself and her baby before and after birth; and documentation of midwifery actions and women’s attitudes and responses.

**Required Reading**

**Recommended Reading**

Subject Hours Block clinical placement of 208 hours.


HNM7203 MIDWIFERY STUDIES 3: CHILDBEARING COMPLICATIONS

Campus St Albans

Prerequisite(s) Midwifery Studies 1 & 2. The Childbearing Journey, Midwifery Practice 2: The Childbearing Journey


Subject Hours 70 hours – 60 hours theory, 10 hours self-directed study.

Assessment Three hour examination: 60%, Essay (1500 words), 40%.

HNM7204 MIDWIFERY PRACTICE 3: CHILDBEARING COMPLICATIONS

Campus St Albans

Prerequisite(s) Midwifery Studies 1 & 2. The Childbearing Journey, Midwifery Practice 2: The Childbearing Journey

Content In partnership with the woman and under supervision: Assessment of the woman and her baby; Working with a woman to give birth; Working with a woman to give nourishment to her baby; Working with a woman to care for herself and her baby before and after birth; Documenting of midwifery actions and women’s attitudes and responses.


Subject Hours Block clinical placement of 208 hours.

Assessment Practice assessment based on ACMI Competency Standards: Satisfactory/Unsatisfactory 3 Reflective Journals: Satisfactory/Unsatisfactory
equipment during sport & exercise, and (iv) basic biomechanical analysis techniques.

Required Reading To be advised by lecturer.


Class Contact Subject Hours: three hours per week for one semester: two hours lecture, one hour tutorial session.

Assessment Mid-semester exam, 40%; Final exam, 60%.

HPE2101 SPORT PHYSIOLOGY

Campus Footscray Park

Prerequisite(s) HPE1204 Exercise Physiology

Content This subject builds on the student's knowledge of exercise physiology, studying the essential importance of exercise physiology in understanding sport and exercise performance, including elite sports and recreational exercise. The subject emphasises understanding the physiological requirements of exercise and sport, evaluates the importance of physiological systems in athletic performance, the essential role of nutrition in exercise and sport, sport-specific adaptations to physical training and comparisons of different forms of training. The subject studies basic principles underlying physiological exercise testing, with emphasis on sport specificity, lab-based and field-based testing. Laboratory and field-based classes require students to administer and interpret exercise tests that are fundamental to exercise physiology including measurements of maximal oxygen consumption, muscle strength and fatigability, skinfold measurements and anaerobic power testing. The subject will include competency evaluation for these tests. The subject examines the important role of exercise physiology in sustaining and enhancing sport performance. The subject is designed to lead to more detailed mechanistic studies in the core subject Advanced Exercise Physiology and applied studies in the elective subject Applied Exercise Physiology, in the Exercise and Sport Science stream.

Required Reading Specific journal articles to be advised


Required Reading To be advised by lecturer.


Class Contact four hours per week for one semester: two hours lecture/tutorial, two hours lab/tutorial.

Assessment Essay, 20%; Lab work, 30%; Final exam, 50%.

HPE2104 EXERCISE PHYSIOLOGY

Campus Footscray Park

Prerequisite(s) SBM1174 Human Physiology

Content This subject applies the student's knowledge of Human Physiology to understanding the acute and chronic responses to exercise, as well as the physiological bases of exercise performance. The subject examines the acute effects of exercise on the cardiovascular, respiratory and thermoregulatory systems, the metabolic supply of energy to exercising muscles, both nutritional and biochemical, and neural mechanisms controlling movement and associated exercise responses. The second part of the unit examines longer term (chronic) physiological responses of exercise training, with foci on cardiorespiratory and musculoskeletal adaptations. Practical sessions will complement topics covered in lectures and will include topics such as energy metabolism at rest and during exercise, maximal oxygen consumption, cardiovascular and respiratory responses to exercise, indirect measurement of body fat and anaerobic power testing. The subject will include both descriptive and mechanistic approaches, to enhance student understanding of exercise physiology principles. This subject forms the basis for advanced core and elective studies in the Exercise and Sport Science Stream.

Required Reading Specific journal articles to be advised


Class Contact Three hours per week for one semester comprising two one hour lectures and one two hour laboratory class every second week.

Assessment Final examination, 60%; mid-semester examination, 25%; laboratory quizzes, 10%; laboratory oral exam, 5%.

HPE3100 ADVANCED EXERCISE PHYSIOLOGY

Campus Footscray Park

Prerequisite(s) HPE 1204 Exercise Physiology

Content This subject explores in-depth the physiological responses to exercise, building on the knowledge gained in previous core subjects Human Physiology, Exercise Physiology, and Sports Physiology in the Exercise and Sport Science stream. The subject focuses on the regulation of the cardiovascular, respiratory, metabolic, endocrine, neural and muscular responses to acute exercise. The subject details the role of exercise in metabolic rate and weight control and associated impact on human health, including major chronic diseases such as diabetes, cardiovascular disease. The subject includes measurement and interpretation of the electrocardiogram (6 and 12 lead) during exercise. Practical sessions include measurement of limb blood flow with exercise, metabolism and electrolyte regulation during intense and prolonged exercise; ECG during graded exercise; respiratory control during exercise, regulation of blood pressure and cardiac responses to exercise; and examination of factors influencing muscle fatigue.

Required Reading Specific journal articles to be advised


Class Contact Four hours per week for one semester comprising two one hour lectures and one two hour laboratory class.

Assessment Laboratory reports, 30%; short tests and assignments, 20%; final examination, 50%.

HPL2186 EXERCISE PRESCRIPTION

Campus Footscray Park, Melton.

Prerequisite(s) HPL1180 Introductory Anatomy; HPL1190 Introductory Physiology, or equivalent.

Content The subject will draw upon the basic skills developed in other subjects to develop the theoretical knowledge and the practical skills necessary to the task of prescribing exercise. A broad range of resources will be accessed to provide insight and information necessary to prescription for a variety of special populations. A series of case studies will be used in parallel with the topics of discussion to provide practical application of the principles developed in lectures. Students will be required to present written solutions to problems which they can defend on logical, practical and theoretical bases.


Class Contact Three hours per week for one semester comprising one two-hour lecture and one hour tutorial/laboratory.

Assessment Case study evaluations, 60%; take home examination, 40%.

HPL3127 RESISTANCE TRAINING 1

Campus Footscray Park, Melton.

Prerequisite(s) Nil.

Content This subject is an introduction to the theories, principles and practice of resistance training. The specific contents are as follows: the physiological theories, principles and effects of resistance training; the biomechanical theories and principles of resistance training; resistance training for strength, power and endurance; major muscle groups; compound and isolation exercises; exercise variations; technique and safety; resistance training technology; designing and practicing a personal resistance training program; nutrition and weight training.


Class Contact Three hours per week for one semester comprising lecture/laboratory.

Assessment Take home examination, 60%; exercise logbook, 10%; three exercise demonstrations, 30%.

JAC0216 WITH WOMAN: RETHINKING PAIN (CONSORTIUM SUBJECT)

Campus Distance Education

Prerequisite(s) Nil.

Corequisite(s) HNM2010 Practice Al Legiances;

Content Spiritual Midwifery: Philosophy; The body systems; Altered states of consciousness; Left brain-right brain; Birth as part of a continuum: Principles of pre and post-operative care. Pain: Pain theory; Working with pain; Sources of pain; The process of loss and grief; Pain Assessment; Expression of pain. Factors influencing the pain process: Philosophical; Psychosocial influences; Physiological; Environmental; Spiritual & culture. Pharmacological therapies: Anaesthetics; Narcotics; Analgesics. Non pharmacological therapies: Support; Water; Movement; Position; TENS. Complementary therapies: Aromatherapy; Tactile therapies; Homoeopathy. The Baby: assessment & monitoring; Influence of pain strategies upon the baby.


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Subject Hours Thirty-six hours for one semester conducted via flexible delivery. 
Assessment A combination of the following, or other appropriate methodologies will be used: examination; written assignment; reflective journal; and learning folio.

JAC0217 UNPACKING MIDWIFERY KNOWLEDGE (CONSORTIUM SUBJECT)
Campus Distance Education
Prerequisite(s) Nil
Required Reading Nil
Subject Hours Thirty-six hours for one semester conducted via flexible delivery.
Assessment A combination of the following, or other appropriate methodologies will be used: examination; written assignment; reflective journal; and learning folio.

JAC0219 WOMEN'S HEALTH: SOCIOPOLITICAL CONTEXT (CONSORTIUM SUBJECT)
Campus Distance Education
Prerequisite(s) Nil
Content Opposing theories and ideologies of female sexuality and health. The relationship between gender and health. Sociocultural influences on sexuality and health. The politics of women's health: poverty, social class, ethnicity; body image; sexual orientation; rape, incest, pornography and violence; genital mutilation; infertility treatments. Women's experiences of health care. The new public health, and women's health care initiatives in Australia.
Required Reading Nil
Subject Hours Thirty-six hours for one semester, conducted via flexible delivery.

Assessment A combination of the following, or other appropriate methodologies will be used: examination; written assignment; reflective journal; and learning folio.

JAC0335 BABIES NEEDING EXTRA CARE (CONSORTIUM SUBJECT)
Campus Distance Education
Prerequisite(s) Nil
Content Growth and Development. Level two nursery environment: Noise; Equipment; Personnel; Influence upon the wellbeing of the baby; Impact upon the family; Role of the midwife in the team. Circumstances that may require babies to be admitted to a Level Two Nursery; pre-term; Post-term; Congenital anomalies; Metabolic disturbances; Small for gestational age; Chemical dependency; Birth asphyxia; Jaundice; Anaemia. Care of the baby: Gestational Assessment; Facilitation of growth and development; Oxygenation; Elimination; Nutrition; Immunity; Temperature. Care of the family: Support and counselling; Involvement in care and decision making; Education; Transition to parenthood. Ethic-legal issues: Informed consent; Rights of the baby; Economic challenges; Maintenance of life support. Neonatal Emergency Transport Service: History of the service; Role of the service; Referral, stabilization and retrieval.
Required Reading To be advised by subject lecturer.
Subject Hours Thirty-six hours for one semester, conducted via flexible delivery.
Assessment A combination of the following, or other appropriate methodologies will be used: examination; written assignment; reflective journal; and learning folio.

JMO1001 WITH CHILDBEARING WOMAN (CONSORTIUM SUBJECT)
Campus Distance Education
Prerequisite(s) Nil
Content Module One: Setting the Scene – defining the role of the midwife in contemporary practice; exploring the desirable attributes of a midwife. Exploring the philosophical basis underpinning the role of the midwife in contemporary midwifery practice – being with woman; woman centredness; working in partnership; establishing relationships with childbearing women. Module Two: Preparing for the role of the Midwife. Introduction to the principles of basic midwifery care – promoting a safe environment – occupational health and safety; principles of infection control; principles of oral medication administration/Poisons Act; principles of optimal nutrition for the woman and her baby; introduction to care maps. Introduction to the principles of health promotion: facilitating informed decision making; accessing relevant information. Undertaking a health assessment: history taking process; baseline observations; guidelines for undertaking physical health assessment. Introduction to primary health counselling; guidelines for undertaking primary health counselling.
Required Reading

Recommended Reading

Subject Hours
Forty-eight hours for one semester conducted by flexible delivery.

Assessment
Written Examination 50% Assignment and presentation 50%.

JMO1003 THE CHILDBEARING JOURNEY (CONSORTIUM SUBJECT)
Campus Distance Education
Prerequisite(s) JMO1001 With Childbearing Woman
Content Module One: The art of midwifery: Relationship; Communication; Boundaries of care; Midwife as primary carer; Midwife’s role in collaborative practice; Establishing a partnership; Philosophy of care; Reflection. Module Two: Pre-conception: Sexuality; Fertility/Infertility; Pre-conception health; Environmental issues. Module Three: The baby and the woman during pregnancy: Embryology; Fetal growth & development; Alteration & adaptation during pregnancy; Maintenance of health; Pregnancy assessment. Module Four: Birthing: Physiological and psychosocial alteration and adaptation during birthing; Facilitating a normal process of birth; With woman; Continuity of care; Assessment; Reception of the newborn.Module Five: After birth of the woman and baby: Adaptation to extrauterine life; lactation; Breastfeeding practices; Attachment & bonding; Development of the family unit; Discharge planning; assessment of mother & baby.

Required Reading

Recommended Reading

Subject Hours
Forty-eight hours for one semester conducted via flexible delivery.

Assessment
A combination of the following, or other appropriate methodologies will be used: examination; written assignment; reflective journal; and learning folio.

JMO3105 WOMEN’S HEALTH: WOMEN’S BUSINESS (CONSORTIUM SUBJECT)
Campus Distance Education
Prerequisite(s) Nil
Content Skill development in woman’s health assessment will be built in a simulated learning environment. The role of the midwife in primary health care will be discussed promoting health and wellness throughout the reproductive lifespan. content will be explored within three modules representing common health problems experienced by women. Module 1: Women’s health across the lifespan – First impressions: Puberty; Controlling fertility/contraception; Sexually transmitted diseases and infections (non HIV); Menstrual disorders; Eating disorders and body image: Rape, sexual assault, incest and domestic violence. Module 2: Women’s health across the lifespan – Physical problems: Pelvic pain, Endometriosis; Infertility; IVF; HIV & AIDS; Breast health and disease; Women’s cancers; Conti, the pelvic floor, vaginal repair; Hysterectomy; Menopause; Chronic illness; Health in the workplace, working in the home. Module 3: Women’s health across the lifespan – Mental health & addictive disorders: Depression; Alcohol and Chemical dependency; Gambling addiction.

Required Reading
To be advised by subject lecturer.

Recommended Reading

Subject Hours
Thirty-six hours for one semester, conducted via flexible delivery.

Assessment
A combination of the following, or other appropriate methodologies will be used: examination; written assignment; reflective journal; and learning folio.

RBF1130 INTRODUCTORY FOOD SCIENCE AND TECHNOLOGY
Campus Werribee
Prerequisite(s) Nil
Content The aim of this subject is to provide an introduction to the Food Industry, its components and organisation, both in Australia and internationally; the composition of foods, food safety and the preservation and processing of fruits and vegetables, grains and oilseeds, dairy products, meat, poultry, fish and beverages.

Required Reading

Class Contact
Two hours per week comprising lectures/tutorials for two semesters.

Assessment
Assignments, 40%; final examinations (twos), 60%.

RBF1140 INTRODUCTION TO FOOD, NUTRITION AND HEALTH SCIENCE-1
Campus Werribee
Prerequisite(s) Nil
Content Introduction to food industry, its components and organisation, both in Australia and internationally; the composition of foods, food processing and food safety; Introduction to the preservation and processing of fruits and vegetables, grains and oilseeds, dairy products, meat, poultry, fish and beverages.
RBF1145 INTRODUCTION TO FOOD, NUTRITION AND HEALTH

SCIENCE-2

Campus Werribee
Prerequisite(s) Nil
Content Principles of nutrition and nutritional aspects of various food commodities and their impact on health.
Required Reading Parker, R., 2003, Introduction to Food Science, Delmar, Thomson Learning Inc. Albany, USA.
Class Contact Four hours per week comprising of three hours of lectures and one hour of tutorial/demonstration.
Assessment Assignment [2x2000 words], 40%; Examination (1x3 hrs), 60%.

RBF1150 GLOBAL ENVIRONMENTAL ISSUES

Campus St Albans
Prerequisites Nil
Content Human population growth and measurement factors; population regulation in China and India; population growth momentum; environmental history and spectrum of environmental thought; environmental groups and their work; connections between social justice and environmental issues – education levels, status of women, human rights and relative levels of wealth, resource consumption and pollution in developing and developed countries; deforestation and biodiversity loss; food production – green and gene revolutions and the African experience; energy resources – a contrast of renewables and fossil fuels/nuclear; water and soil resources – appropriate agriculture and permaculture; chemistry and sources of indoor and outdoor air pollution – the enhanced greenhouse effect and depletion of stratospheric ozone; the role of traditional economics in environmental degradation.
Class Contact Four hours per week for one semester
Assessment Case study and assignments: 60 %; Examination: 40 %

RBF1160 AUSTRALIAN LANDSCAPES AND BIOTA

Campus St Albans
Prerequisites Nil
Content To introduce students to the range of environments and landscapes that are present across the Australian continent, and the nature of the plants and animals that inhabit these landscapes. This will be achieved by: 1) discussing the factors that have shaped the various Australian environments, including geomorphological and climatic processes, and historical factors; 2) introducing the distinctive flora and fauna of Australia and the evolutionary pressures that have shaped the Australian biota; and 3) reviewing relationships between the biota and the environment. The subject will provide a foundation of knowledge about the Australian environment even for students not continuing in the biological sciences.
Required Reading To be advised
Class Contact Four hours per week for one semester, but comprising two hours of lectures each week and a series of all-day field trips.
Assessment Field work reports: 40 %; Assignments: 20 %; Examination: 20 %.

RBF1310 BIOLOGY 1

Campus St Albans, Werribee.
Prerequisite(s) Nil
Content Biology of the cell. Mammalian biology with particular reference to the structure and function of various human physiological systems.
Required Reading Solomon, Berg and Martin Biology,. latest edn, Thomson or as advised by lecturer.
Recommended Reading To be advised by lecturer.
Class Contact Five hours per week for one semester comprising three hours of lectures and two hours of practical work.
Assessment Assignments, 10%; practical work, 30%; final examination, 60%.

RBF1320 BIOLOGY 2

Campus St Albans, Werribee.
Prerequisite(s) Nil
Required Reading Solomon, Berg and Martin Biology,. latest edn, Thomson or as advised by lecturer.
Recommended Reading To be advised by lecturer.
Class Contact Five hours per week for one semester comprising three hours of lectures and two hours of practical work.
Assessment Assignments, 10%; practical work, 30%; final examination, 60%.
RBF1738 CELL STRUCTURE AND FUNCTION

Campus St Albans
Prerequisite(s) Nil
Content Microscopic cell structure and function; cellular reproduction to include bacteria and viruses etc; cell membranes and transport; nuclear structure and function; mitochondrial activity; ribosomal activity; cell type specificity; lysosomes; autolysis etc; histology; human genetics; microbiology; spread and transmission of infection/microbes; categories of infective agents; bacterial; viral; fungal; parasitic; sterilisation and disinfection; resistance; host and infective agents.
Class Contact Two hours per week for one semester comprising two one-hour lectures every other week and one two-hour laboratory session every other week.
Assessment Written examinations, 60%; reports, 40%.

RBF2192 APPLIED MICROBIOLOGY

Campus Footscray Park
Prerequisite(s) RMB1570 Biology 1.
Content The aim of this subject is to provide an overview of the structure and characteristics of microorganisms. To study growth of microorganisms in culture, metabolism and function. To investigate application of microorganisms in industry and biological waste treatment. Mutagenics, genetic and strain improvement.
Class Contact Two hours of lecture and three hours of practical work per week for one semester.

Assessment Based upon short tests, practical reports and an end-of-semester examination.

RBF2215 NUTRITION AND FOOD ANALYSIS LABORATORY-2

Campus Werribee
Prerequisite(s) RBF2145 Introduction to Food, Nutrition and Health Science and RCS1601 Chemistry A and RCS1602 Chemistry B or equivalent.
Content Rationale for experimental procedures used in nutrition, experimental design, statistical analysis, anthropometry, feeding trials, N balance studies, amino acid score, digestibility of food, nutritional survey and data collection, dietary instrument design, diet analysis, calorimetry, analysis of specific nutrients, use of analysis software, site visits. Pitfalls and complications encountered in human nutrition experimentation, and strategies commonly used to overcome these.
Class Contact Four h per week, comprising two hours of lecture and two hours of lab
Assessment Assignment (2x2000 words), 20%; Examination (1x3 hrs), 50%; Practical work (6 lab reports), 30%.

RBF2218 NUTRITION AND COMMUNITY HEALTH

Campus Werribee
Prerequisite(s) RBM 2750 Nutrition or equivalent.
Content Importance of community nutrition in public health promotion. Health behavior theories. Food security. Community nutrition throughout the lifespan (breastfeeding promotion; childhood and adolescence; adults and chronic disease prevention; nutrition-related problems in the elderly). Development of effective communication programs. Education and intervention programs in localizing public health data and health epidemiology. Cultural competency and International nutrition.
Class Contact Four h per week, comprising of three hours of lecture and one hour of tutorial.
Assessment Assignment (2x2000 words), 20%; Examination (1x3 hrs), 50%; Case study 1, 30%.

RBF2300 MICROBIOLOGY 1

Campus Werribee.
Prerequisite(s) RBF1310 Biology 1.
Content Introduction to the biology of bacteria, protozoans, fungi and viruses. Microbial cell morphology; structure and function of cell components. Growth, reproduction and enumeration of microorganisms. Control of microbial growth: the effect of physical and chemical environments on growth. Microbial metabolism and genetics.
Required Reading To be advised by lecturer.
Class Contact Five hours per week comprising two hours of lectures and three hours of practical for one semester.
Assessment Assignment, 20%; practical work, 25%; examination, 55%.

RBF2310 MICROBIOLOGY 2
Campus Werribee
Prerequisite(s) RBF2300 Microbiology 1.
Content This subject aims to build on material covered in RBF2300 Microbiology 1 to further develop the student’s knowledge of microbiology. Topics include: introduction to microbial ecology, evolutionary and ecological aspects of interactions between microbes and higher organisms, microbiota associated with selected animals and plants, non-specific host defences in a range of plants and animals, entry of pathogens into a range of plant and animal hosts, pathogenic effects in a range of plant and animal hosts, clinical and diagnostic microbiology, basic principles of public health microbiology.
Required Reading To be advised by lecturer.
Class Contact Five hours per week comprising two hours of lectures, two hours of laboratory work and one hour tutorial for one semester.
Assessment Assignment, 20%; practical work, 25%; final examination, 55%.

RBF2300 CELL BIOLOGY
Campus St Albans, Werribee.
Prerequisite(s) RBF1310 Biology 1 or RBM1528 Human Physiology 2 or equivalent.
Content This unit complements units in Biochemistry and provides a strong foundation for students moving into areas such as: biotechnology, molecular biology, medical sciences and environmental sciences. Topics covered include: Eukaryotic cell organisation (covering all of the major organelles) and compartmentalisation; membranes and transport mechanisms; the cell surface; intracellular targeting of proteins including cotranslational and post translational pathways; transport and docking of vesicles; motor proteins, movement and the cytoskeleton; communication between cells including receptors and signal transduction pathways; cell cycle and its regulation; apoptosis; the molecular basis of cancer.
Required Reading To be advised by lecturer.
Class Contact Four hours per week for one semester based on three hours of lectures and one hour of tutorial.
Assessment Assignments, 40%; examination, 60%.

RBF2390 MOLECULAR GENETICS
Campus Werribee
Prerequisites RBF2520 Biochemistry I.
Content Introduction to developments at the forefront of molecular biology of gene structure and function and molecular genetics. The subject will build on material covered in Biochemistry I and Cell Biology and strengthen the foundations for the unit ‘Genetic Engineering’ in the final year of the degree program. Main topics include: organisation of eukaryotic genomes including repetitive and nonrepetitive DNA sequences, multigene families, pseudogenes; organisation of prokaryotic genomes; genomic rearrangements including transposable genetic elements, retroviruses and other mechanisms; genetic rearrangements in the immune system, replication of DNA, telomeres and telomerase, methylation and imprinting of DNA, mutations and repair mechanisms, regulation of gene expression, specialised genetic systems including genes in early development, genes responsive to hormones and heat shock.

Required Reading To be advised by the lecturer.
Class Contact Four hours per week, comprising three hours of lectures and one hour tutorial, for one semester.
Assessment Assignment work, 40%; examination, 60%.

RBF2410 FOOD COMPONENTS AND INTERACTIONS
Campus Werribee
Prerequisite(s) RBF1140 Introduction to Food, Nutrition and Health Science and RCS1601 Chemistry A and RCS1602 Chemistry B or equivalent.
Content Food constituents; water; structure, chemistry, stability and functional properties of proteins, carbohydrates, fats and oils, vitamins and minerals. Food colour, texture and flavour. Reactions leading to deterioration of foods: oxidative deterioration and rancidity, anti-oxidants, browning reactions; food additives, natural and synthetic colorants and flavouring agents; gels, colloids, foams and emulsions.
Class Contact Four hours per week, comprising of three hours of lecture and one hour of tutorial.
Assessment Assignment (2x2000 words), 40%; Examination (1x3 hrs), 60%.

RBF2520 BIOCHEMISTRY 1
Campus St Albans, Werribee.
Prerequisite(s) RBF1310 Biology 1 and RCS1601 Chemistry 1A or equivalent.
Content This subject aims to provide a general introduction to biochemistry and includes: structure and functions of carbohydrates, lipids, proteins and nucleic acids. Biological membranes. Enzymes: kinetics and regulatory enzymes. Metabolism: bioenergetics, glycolysis, citric acid cycle, chemiosmosis, gluconeogenesis, amino acid metabolism, fatty acid metabolism, photosynthesis. DNA: structure, replication, expression, and basic gene cloning.
Required Reading To be advised by lecturer.
Class Contact Six hours per week, comprising three hours of lectures, two hours of laboratory, and one hour of tutorial work for one semester.
Assessment Practical work, 30%; final examination, 25%; assignment/test, 15%.

RBF2530 BIOCHEMISTRY 2
Campus Werribee
Prerequisite(s) SBF2520 Biochemistry 1.
Content The aim of this subject is to expand on material covered in Biochemistry 1, and complement the Molecular Cell Biology and Microbiology subjects. Along with Biochemistry 1, this subject will provide a solid foundation in biochemical principles, reactions and applications. Topics covered include bioenergetics, the pentose phosphate pathway, amino acid and nucleotide metabolism, photosynthesis, aspects of plant metabolism and biochemistry of neurotransmitters. Other topics covered will include the structure and function of biological molecules, ligand binding and conformational changes, mechanisms of enzyme action, advanced enzyme kinetics, regulation of biochemical systems such as hormonal and transcriptional control. Applied aspects of biochemistry will also be considered.
Required Reading To be advised by lecturer.
Class Contact Six hours per week, comprising three hours of lectures, two hours of laboratory work and one hour tutorial for one semester.
RBF2610 FUNDAMENTALS OF ECOLOGY

**Campus** St. Albans

**Prerequisites** RBF1310 Biology 1, RBF 1320 Biology2

**Content** History and nature of ecology; Ecology & evolution – natural selection & speciation; niche concept – ecophysiology, limiting factors; Population biology – individuals, species & populations, population growth, demographics, life tables, age distributions, population regulation, intra- & interspecific competition, predation, parasitism, mutualism; Behaviour; Community – species diversity, species abundance models, succession, food chains, trophic relationships; Ecosystems – energy transfer, geochemical cycles, global patterns & processes; World biogeography & biomes; Palaeoecology

**Required Reading** To be advised by lecturer.

**Recommended Reading** To be advised by lecturer.

**Class Contact** Four hours per week for one semester, comprising two hours of lectures and two hours of practicals (mainly field excursions)

**Assessment** Field studies and assignments: 50 %; Examination: 50 %.

RBF2620 AUSTRALIAN PLANTS

**Campus** St. Albans

**Prerequisites** RBF1310 Biology 1, RBF1320 Biology 2

**Content** An understanding of: 1) the diversity and evolution of plants and fungi, with emphasis on Australian native plants and fungi; 2) the characteristic morphology and life history of the major plant groups and fungi; 3) the basic principles of the systematics of Australian plants including biological nomenclature, identification and classification; and 4) how the biogeography of Australian plants can be explained by their life history and the history of the continent, particularly to instil an understanding of how and why Australia has evolved a diverse and highly endemic primarily sclerophyllous flora where the forests and woodlands are dominated by two tree genera, Eucalyptus and Acacia.


**Class Contact** Four hours per week for one semester, comprising two hours of lectures and two hours of practicals.

**Assessment** Practicals and assignments: 60 %; examination: 40 %.

RBF2630 COMMUNITY AND ENVIRONMENT

**Campus** St. Albans

**Prerequisites** Nil

**Content** Exploration of the various socially-based conceptual frameworks for understanding the range of environmental viewpoints in the community, and the consequences of these frameworks for practical environmental protection and repair. Practical experience in working with a wide range of community representatives on environmental protection and repair projects. Practical skills development in how to communicate with community groups and individuals, including clear, simple explanations, active and reflective listening, negotiating, consulting and drawing up and presenting project proposals. Insights into the range of skills and experience required to gain employment in environmental management fields, and the range of employment available.

**Required Reading** To be advised


**Class Contact** Four hours per week in total, timetabled as a block, and consisting of a mix of lectures, tutorials, practical workshops and site visits.

**Assessment** Assignment: 20 %; practical workshop and field reports: 30 %; final examination: 50 %.

RBF2640 AUSTRALIAN ANIMALS

**Campus** St. Albans

**Prerequisites** RBF 1310 Biology 1, RBF 1220 Biology 2

**Content** Diversity of animal life, with an emphasis on the Australian fauna; the science of systematics, including cladistic analysis; Bauplans; evolution and origin of biodiversity in marine and terrestrial environments; historical and ecological biogeography, including faunal regions and habitat types; ‘uniqueness’ of the Australian fauna.

**Required Reading** To be advised by lecturer.


**Class Contact** Four hours per week for one semester, comprising two hours of lectures and two hours of practical classes composed mainly of field excursions.

**Assessment** Practical: 50 %; Examination: 50 %.

RBF2740 PRINCIPLES OF FOOD PRESERVATION

**Campus** Werribee

**Prerequisite(s)** RBF1130 Introductory Food Science and Technology


**Required Reading** To be advised by lecturer.

**Recommended Reading** Ackermann, P., 1995, Food and Packaging Materials-Chemical Interactions, Royal Society of
FACULTY OF HEALTH, ENGINEERING AND SCIENCE


Class Contact Four hours per week comprising lectures/tutorials for one semester.

Assessment Assignments and tests, 30%; final examination, 70%.

RBF2922 SCIENCE AND SOCIETY

Campus St Albans, Werribee.

Prerequisite(s) Nil.

Content The subject aims to encourage students to appreciate modern scientific culture as historically unique phenomenon, and thus to enable them to analyse specific developments and events in modern society. The subject looks at the failure of philosophical attempts to establish a scientific method, and explores the view that science is fantastically creative rather than 'dull-but-honest'. Two case-studies are used: the development of Darwinism, and the transition from Newton's theory of gravitation to Einstein's theory of general relativity. The development of modern scientific culture is analysed in the following case studies in particular: China and Japan's divergent responses to confrontation with Western culture, technological developments in Nazi Germany and Stalinist Russia, the structure and funding of American basic research, and the development of the nuclear industry. The teaching of science subject and popular perceptions of science will also be looked at.


Class Contact Four hours per week for one semester, comprising one two-hour lecture and one two-hour tutorial.

Assessment Assignments, 50%; semester examination, 50%. A satisfactory assessment will require satisfactory attendance (80%) at tutorials.

RBF3230 ANIMAL FOOD PROCESSING

Campus Werribee

Prerequisite(s) Nil


Required Reading To be advised by the instructor.


Class Contact Three hours per week comprising lectures and tutorial.

Assessment Assignment (2x3000 words), 50%; Exam (1x three h), 50%.

RBF3235 PLANT FOOD PROCESSING

Campus Werribee

Prerequisite(s) Nil


Required Reading To be advised by the instructor.


Class Contact Three hours per week comprising lecture and tutorial.

Assessment Assignment (2x3000 words), 50%; Exam (1x three h), 50%.

RBF3240 FUNCTIONAL FOODS

Campus Werribee

Prerequisite(s) RMB2750 Nutrition

Content This subject examines the role and potential of functional ingredients and foods in human nutrition; natural anti-microbial substances in human nutrition; the role of intestinal flora in human health; prebiotics, probiotics, probiotic bacteria and symbiosis.


Class Contact Three hours per week comprising lectures/tutorials for one semester.

Assessment Assignments, 40%; final examination, 60%.

RBF3250 FOOD SAFETY AND QUALITY

Campus Werribee

Prerequisite(s) RBF1140 Introduction to Food, Nutrition and Health Science.

Content Major factors used in assessing food quality, sampling, control charts, shelf-life testing, product recalls, collaborative testing, cleaning and sanitizing, rapid testing methods, government regulations, and overall quality plans such as HACCP. Human sensory perception of food components and their interactions and role of sensory methods in assessment of food quality and safety. Toxicology and allergenicity of foods.

Required Reading To be advised by the lecturer.


Class Contact Four hours per week comprising three h of lectures and one hour of tutorial/demonstration/practical work.

Assessment Assignment (2x2500 words), 30%; Exam (1x three h), 50%; Practical reports/class tests 2/2, 20%.
RBF3255 PRODUCT DEVELOPMENT

Campus Werribee
Prerequisite(s) RBF1140 and RBF1145 Introduction to Food, Nutrition and Health Science 1 and 2.
Content Product idea generation; concept development and testing; Marketing-strategy development; Product and process development process (project planning, formulation development, process development, shelf-life testing); Consumer testing: Market trial methods and estimation of market size; Product specifications (raw materials, process, finished product); Packaging and labelling, product evaluation, product costing and pricing; Production planning; Market development and product launch.
Class Contact Three hours per week comprising two hours of lectures and one hour of tutorial/demonstration/practical work.
Assessment Assignment (1x3000 words), 20%; Exam (1x three h), 50%
Practical reports/class tests 2, 30%.

RBF3382 INTRODUCTION TO MOLECULAR BIOLOGY AND BIOTECHNOLOGY

Campus Footscray Park
Prerequisite(s) RBF2192 Applied Microbiology.
Content This subject will cover current knowledge about genes (what they are, how they work and how they are manipulated), and examine various techniques used to study and manipulate genes. Topics include: the function of genes, the chemical identity, structure and properties of genes, strategies used by nature or developed in the laboratory for manipulating genes and specific uses of laboratory based gene manipulation.
Required Reading To be advised by the lecturer.
Class Contact Two hours of lectures per week and two hours of practicals on alternate weeks.
Assessment Short tests, practical reports and end-of-semester examination.

RBF3540 LEADERSHIP AND THE ENVIRONMENT

Campus St Albans
Prerequisite(s) Nil.
Content Three phases in the history of leadership studies: the characteristics or traits of leaders from studies done in the first half of this century; the thirty years of theories of what would lead to effective leader behaviour in certain situations; the 1980’s and after when a broader picture of what might explain leader success began to develop. The current place of ethics, morals, values, feelings and power as sources of information regarding leader behaviour. Leadership as an art and as a service – as a weaving of relationships rather than an amassing of information. The strong links which exist between holistic environmentalism and emerging leadership theory. Case studies from business, government and environmental organisations of successful leaders who show evidence of wholeness, care and service for the other.
Required Reading To be advised by lecturer.
Class Contact Three hours per week.
Assessment Assignments, 50%; examination, 50%.

RBF3600 AQUATIC ECOLOGY

Campus St Albans
Prerequisite(s) RBF 1310 Biology 1, RBF 1320 Biology 2, RBF 2610 Fundamentals of Ecology
Content This subject provides an overview to the ecology and management of freshwater, estuarine and marine ecosystems in southern Australia. The material covered includes: ecology of upland and lowland-flowplain rivers (including impact of flow regulation and environmental water allocations); ecology of lakes and reservoirs (including algal bloom control and impacts of recreation); wetland ecology and management (including international conventions on waterbirds); seagrass, mangrove and saltmarsh ecology and management; significance of rocky shore habitats in southern Australia; estuarine ecology (with particular emphasis on Port Phillip Bay and the Gippsland Lakes) and environmental degradation and repair of aquatic systems.
Class Contact Four hours per week, comprising 1 x two hour lecture, 1 x one hour tutorial/directed learning and 2 x day-long field excursions.
Assessment Within-semester (on-going) assessment at Weeks 6 and 13 (60 %) plus two field reports (40 %).

RBF3610 BIOSTATISTICS

Campus St. Albans (offered subject to minimum enrolments in 2004)
Prerequisites Year 12 Mathematics or co-ordinators discretion, RMA1110 Maths 1 and RMA1120 Maths 2
Content This subject aims to introduce students to the practical use of statistics in the biological, ecological and health sciences. Particular emphasis is given to experimental design and ‘real world’ use of statistical procedures. Material covered includes: Revision of statistical concepts and the significance of statistics/biometrics in biological/environmental analysis. Distributions and the nature of data; the use of correlation and regression in developing
Recommended Reading
Prentice Hall

RBF3620 CONSERVATION AND SUSTAINABILITY

Class Contact

Four hours per week over one semester, comprising two hours of lectures and two hours of interactive practicals/tutorials per week.

Assessment

Assignments: 30 %; Examinations: 70 %.

RBF3630 ENVIRONMENTAL IMPACTS AND MONITORING

Prerequisites

RBF1310 Biology 1, RBF1320 Biology 2, RBF2610 Fundamentals of Ecology, or at the discretion of the subject co-ordinator.

Content

This subject aims to introduce students to the ‘real world’ application of ecological studies, especially in the process of sustainable development. Topics covered will include: Overview of Australian natural resources subject to environmental degradation (e.g. land, soil, water, biota); The social and industrial factors responsible for degradation (e.g. erosion, water pollution, salinisation, habitat destruction, exotic species, extraction, biodiversity loss etc); The Environmental Impact Assessment process used to quantify impacts (e.g. role of consultants, the EIA process itself); Approaches to monitoring environmental degradation and recovery (e.g. sampling design, monitoring procedures, rapid assessment protocols, ANZECC guidelines); Mechanisms and approaches available to minimise impacts (reserve systems, limits of acceptable change technologies, financial tools, role of government departments). Particular emphasis is given to ‘hands on’ experience.

Required Reading


Recommended Reading

ANZECC, 2000, Australian guidelines for water quality monitoring and reporting, ANZECC, Canberra.


Class Contact

Four hours per week, comprising 1 x two hr lecture, 1 x two hr interactive tutorial/directed learning session (including group presentations).

Assessment

Within-semester (ongoing) assessment at Weeks 6 and 13 (60 %) plus one case study report or project (40 %, including group presentation).

RBF3640 TERRESTRIAL ENVIRONMENTS AND REHABILITATION

Prerequisites

RBF1310 Biology 1, RBF1320 Biology 2, RBF2610 Fundamentals of Ecology, or at the discretion of the subject co-ordinator.

Content

The major types of ecosystems, including forests, woodlands, grasslands, tundra and desert. The biological limits and adaptations of the organisms contained in these ecosystems and key ecological relationships between organisms. Case studies of rehabilitation of several of these ecosystems, including approaches based on understanding of biology and ecology. Practical experience in rehabilitation projects.

Required Reading


Recommended Reading


Class Contact

Four hours per week for one semester, comprising two hours of lectures and two hours of practical.

Assessment

Practicals and assignments: 40%; examination: 60%.


Class Contact

Four hours per week for one semester, comprising two hours of lectures and two hours of practical.
RBF3650 POLLUTION BIOLOGY

Campus St. Albans (this subject will first run in 2006)
Prerequisite RBF2610 Fundamentals of Ecology, RBF1310 Biology 1, RBF1320 Biology 2, Biometrics RBF3610, or subject co-ordinators discretion.
Content This subject aims to introduce students to the impact of pollutants on natural ecosystems. Topics covered include: Principles and concepts which apply to the analysis and evaluation of pollutant impacts on the natural environment. Experimental methodology employed in the evaluation of organism and ecosystem responses to pollutant exposure with special emphasis on statistical procedures which can be employed in evaluating impacts. Types of and significance of different groups of pollutants. Tolerance and susceptibility of organisms and biological systems to pollutants; pollution monitoring, biological indicators of pollution induced environmental stress; sequestering of xenogenous compounds; partitioning; sources and environmental transport; uptake and depuration; case studies.
Required Reading To be advised
Class Contact Four hours per week for one semester, comprising two hours of lectures and two hours of practical.
Assessment Practicals and assignments: 40 %; examination: 60 %.

RBF3660 INDIGENOUS SOCIETY AND ENVIRONMENTAL MANAGEMENT

Campus St Albans (offered subject to minimum enrolments in 2004)
Prerequisite(s) Nil
Class Contact Two hours per week
Assessment Folder plus Case Study/Video/Art Work/Story/Photo Essay; Contribution.

RBF3730 FOOD MICROBIOLOGY

Campus Werribee
Prerequisite(s) RBF2300 Microbiology 1.
Content The aim of this subject is to develop and increase the student’s knowledge and skills in microbiology with particular reference to the role of micro-organisms in food processing, food spoilage and food-borne disease. Topics include: characteristics of major groups of micro-organisms of importance in foods; ecology of food spoilage. Microbial growth in foods; microbial fermentation and fermented products; biomass; waste treatment; food-borne infections and food poisoning; control and prevention of food-borne disease; hygiene and sanitation; mycotoxins; legislation and standards will be covered.
Class Contact Six hours per week for one semester comprising lectures, tutorials and practical work.
Assessment Assignments, 15%; practical work, 25%; final examination, 60%.

RBF3810 NUTRIENT AND DRUG INTERACTION

Campus Werribee
Prerequisite(s) RBF 2550 Nutrition, SBM 2260 Diet and Nutrition or equivalent, SNH2110 Disease and Health.
Content The aim is to study metabolic fate of drugs and nutrient and drug interactions. Metabolic fates of drugs and xenobiotics, known drug-nutrient interactions, role of nutrient-drug interactions in the development of nutritional imbalance. Pharmacodynamics. Major classes of prescription drugs and their indications, and their effects on gastrointestinal and metabolic function. Role of nutrient-drug interactions in the aetiology and treatment of significant disease conditions. Impact of hepatic and renal insufficiency on drug and nutrient bioavailability.
Class Contact Three hours per week for one semester comprising lectures and tutorials.
Assessment Assignments 40%, final examination 60%.
RB3900 PROJECT FOOD, NUTRITION AND HEALTH

Campus Werribee
Prerequisite(s) Students would normally be expected to have successfully completed all Year 1 and 2 subjects.
Content The subject aims to enable students to become competent in applying research methodology to a specific problem and to enable them to develop an area of personal interest relevant to their degree specialisation. This subject covers project methodology, experimental design and analysis, and research plan preparation. The project will be, as far as is possible, concerned with a real problem and will require the presentation of an oral and written report and may form all or part of a research publication. The project will be chosen by the student in consultation with staff members.
Required Reading There are no prescribed texts for this subject.
Class Contact Eight hours per week for one semester comprising lectures, tutorials and practical work.
Assessment A choice of research project will be made halfway through semester five and an assignment concerned with establishing the methodology for this project will be assessed and will contribute 20% to the overall assessment of the project. The written project will contribute 60% and the oral presentation will contribute 20% to the overall assessment.

RBM1171 APPLIED NEUROMUSCULAR PHYSIOLOGY

Campus Footscray Park
Prerequisite(s) Nil.
Content Students will gain an appreciation of those aspects of nerve and muscle function which form the basis of human movement. Topics will include: basic cell concepts, energy systems, physiology of the neuron, structure and function of muscle fibres control of muscle contraction; sensory mechanism, higher functions of the nervous system.
Required Reading To be advised by the lecturer.
Class Contact Two hours of lectures and two hours of laboratory class or tutorial per week for one semester.
Assessment Tutorial preparation, topic tests and a final examination.

RBM1174 HUMAN PHYSIOLOGY

Campus Footscray Park
Prerequisite(s) Nil.
Content The general aim of the subject is to give students an understanding of basic concepts in human physiology. Successful completion of the subject will enable students to describe basic cell structures and functions for generalised and specialised cells; outline co-ordinated body functions with specific applications to the cardiovascular, respiratory, musculo-skeletal, neural, alimentary and renal systems; understand basic concepts in organic metabolism and energy balance.
Class Contact Three hours per week for one semester comprising two one-hour lectures per week and one two hour laboratory on alternate weeks.
Assessment Practical, 20%; topic tests 20%; examination, 60%.

RBM1501 FOUNDATIONS IN BIOMEDICAL SCIENCES A
(COMMUNICATION)

Campus St Albans
Prerequisite(s) Nil.
Content A series of lectures and workshops that will provide students with an introduction to communication theory and professional practice. This will cover communication skills of summarising, synthesising, note taking, laboratory report and essay writing, researching and referencing. Students will be encouraged to develop critical thinking and self-editing skills. Oral presentation techniques such as debating, formal talks, impromptu presentations and small group presentations will be developed. Students will be encouraged to focus on the holistic nature of the communication process. Context specific materials about biomedical science will be delivered through lectures, video and seminars.
Required Reading Handbook of Communication Skills for First Year Students in the Faculty of Science, Engineering and Technology.
Recommended Reading Mohan T, et al. 2004 Communicating as Professionals, Thomson, Southbank
Class Contact 2 x one hr lecture; 1 x two hr laboratory; 1 x two hr workshop.
Assessment Synthesis (500 words), 5%; Essay (1500 words), 15%; Oral Presentations, 20%; Laboratory reports, 15%; Laboratory participation, 15%; Exam, 30%.

RBM1502 FOUNDATIONS IN BIOMEDICAL SCIENCES B
(BIOSTATISTICS)

Campus St Albans
Prerequisite(s) Nil.
Content This unit of study enables students to acquire the skills and techniques required to critically analyse written material, particularly scientific reports and to analyse scientific data. Topics include: basic mathematical principles, scientific notation and SI units, biophysics, introduction to data; descriptive statistics; introduction to probability; normal distribution; the t statistic; hypotheses testing and ‘p’ values. Use will be made of statistical and other computer packages commonly used within biomedical sciences.
Required Reading Strube P 2003 Bodyworks, 2nd ed. Prentice Hall; Utts & Heckard 2004 Mind On Statistics, 2nd ed. Thomson; Handbook of biophysics and biostatistics for biomedical science students in the Faculty of Science, Engineering and Technology.
RBM1510 HUMAN BIOSCIENCE 1A

Campus St Albans
Prerequisite(s) Nil

Content This unit provides a basic knowledge and understanding of human cells, tissues and organ systems. It also introduces chemical and physical principles and relates these principles to the human body. Concepts of physiological regulation and homeostasis are discussed and applied to functions of body systems. This subject provides an overview of the structure and function of the human body.

Required Reading To be advised by lecturers.

Class Contact Seven hours per week comprising four hours lectures, three hours laboratory and/or tutorial.

Assessment Tests and examinations, 55%; laboratory reports, laboratory tests and assignments, 45%.

RBM1514 FUNCTIONAL ANATOMY 1

Campus St Albans
Prerequisite(s) Nil

Co-requisite(s) Nil

Content This unit of study introduces students to functional anatomy. After a brief introduction to bones, joints, muscles, vessels and nerves; students study gross, histological and some surface anatomy of the head and neck and the back. The following regions are studied: skull and cranial cavity, brain and the associated nervous system, scalp and face, eye and ear, nasal and oral cavities, major structures of the neck, vertebral column and deep and superficial muscles of the back. The relevance of functional anatomy to health and healing will be highlighted. Topics studied in this unit of study may be interchanged with those of the unit of study Functional Anatomy 2 and/or 3.


Class Contact Five hours per week, 3h lectures, 2h practicals.

Assessment Topic Test x 2, 10%; Practical exam, 35%; Theory exam, 55%.

RBM1515 ANATOMY AND PHYSIOLOGY 1

Campus St Albans
Prerequisite(s) Nil

Content The subject provides students with a basic knowledge and understanding of the structure and function of human body. Cells and tissues are introduced. Basic concepts in chemistry and biochemistry are covered in relation to the human body. The bones, joints and muscles of the body are taught in an integrated way using a regional approach. The nervous system and endocrine system are discussed to highlight their regulatory role for control, co-ordination and communication. The physiology of nerve cells is also covered, and this is followed by a discussion of special senses, in particular sight, hearing and balance.


Recommended Reading To be advised by Lecturer.

RBM1518 HUMAN PHYSIOLOGY 1

Campus St Albans
Prerequisite(s) Nil.

Content The importance of homeostasis and the role of the neuro-endocrine system in maintaining equilibrium within the body is emphasised. The nervous system and endocrine system are introduced in an integrated way to highlight their regulatory role for control, co-ordination and communication. The nervous system will be represented as the body’s most rapid means of maintaining homeostasis via sensations, integration and response to changes, both within the body and in the outside environment. The physiology of nerve cells will be used to introduce bioelectrical concepts. This provides the groundwork to support an understanding of the various types of cells within the body and their functions. The musculoskeletal system and cellular replication processes are covered. Topics studied in this subject may be interchanged with those of RBM1528 Physiology 2.

Required Reading Seeley, Stephens & Tate 2003, Anatomy and Physiology, 6th edn, McGraw-Hill.


Class Contact Five hours per week for one semester, comprising three hours of lectures, two hours of practical on alternate weeks and one hour tutorial class per week.

Assessment Practical reports/test and assignment/worksheets, 45%; test/examination, 55%.

RBM1519 HUMAN BIOSCIENCE 1: BODY STRUCTURE & FUNCTION

Campus St Albans
Prerequisite(s) Nil

Content In this subject, Human Bioscience will be introduced and placed in context with nursing in an integrated fashion. Content will include a brief overview of the organization of the human body; students will be introduced to the structure and functions of cells and the various types of tissues in the body. Basic concepts in chemistry and biochemistry will be covered providing the groundwork to support an understanding of the various types of cells and their functions within the body. Students are also introduced to microbiology and the importance of infection control. The importance of homeostasis is continuously highlighted and the role of the neuro-endocrine system in maintaining equilibrium within the body is emphasised. This will be followed by discussions of other body systems emphasizing the relationship between structure and function and their relevance to Nursing.


**Subject Hours**
A total of 48 hours, comprising lectures, tutorials and practicals.

**Assessment**
Practical assignments and test 50%, theory test and examination 50%.

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**RBM1520 HUMAN BIOSCIENCE 2A**

**Campus** St Albans, Werribee

**Prerequisite(s)**
Students would normally be expected to successfully complete RBM1510 Human Bioscience 1A.

**Content**
This subject aims to enable the students to extend theoretical knowledge of normal human structure and function developed in RBM1510 Human Bioscience 1A by examining more complex integrated functioning of the various systems in health and comparing these with selected deviations from health. Students will be introduced to fluid and electrolyte dynamics, the role of membrane structures and capillary dynamics, and integration of the neural, endocrine, circulatory, respiratory, and renal sub-systems in maintaining fluid, electrolyte and acid-base balance. Metabolism, body temperature control and nutrition are examined. Microbiology is introduced.

**Required Reading**
To be advised by lecturer.

**Class Contact**
Six hours per week comprising three hours of lectures, three hours of laboratory and/or tutorials for one semester.

**Assessment**
Test and examination, 55%; laboratory reports and assignments, 45%.

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**RBM1524 FUNCTIONAL ANATOMY 2**

**Campus** St Albans

**Prerequisite(s)**
RBM1514 Functional Anatomy 1 and RBM1518 Human Physiology.

**Co-requisite(s)**
RBM1528 Human Physiology 2.

**Content**
Students study gross, histological and some surface anatomy of the thorax, abdomen and pelvis. The following regions are studied: thoracic cage, pleura and lungs, heart, mediastinal structures, abdominal wall, pelvic girdle, gastrointestinal organs, urinary organs and reproductive organs. The relevance of functional anatomy to health and healing will be highlighted. Topics studied in this unit of study may be interchanged with those of the unit of study Functional Anatomy 2 and/or 3.

**Required Reading**

**Recommended Reading**

**Class Contact**
Five hours per week, 3h lectures, 2h practicals.

**Assessment**
Topic Test x 2, 10%; Practical exam, 35%; Theory exam, 55%.

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**RBM1525 ANATOMY AND PHYSIOLOGY 2**

**Campus** St Albans

**Prerequisite(s)** Nil

**Content**
The aim of this subject is to build upon the introductory knowledge of human structure and function covered in RBM1515 Anatomy and Physiology 1 in order for students to gain an integrated understanding of human organs and body systems. The cardiovascular, respiratory, urinary, gastrointestinal and reproductive systems are placed in context with their overall regulation and coordination via the neuro-endocrine system. This provides an understanding of how homeostatic mechanisms regulate variables such as blood pressure, blood gas status, acid-base balance, fluid and electrolyte balance and blood glucose. The provision of nutrients to the body by the gastrointestinal system is integrated with the study of biochemistry and metabolism. An introduction to basic concepts of inheritance is followed by the study of the male and female reproductive systems. Topics studied in this subject may be interchanged with those of RBM1518 Physiology 1.

**Required Reading**
Seeley, Stephens & Tate 2003, Anatomy and Physiology, 6th edn, McGraw-Hill.

**Recommended Reading**

**Class Contact**
Five hours per week for one semester, comprising three hours of lectures, two hours of practical on alternate weeks and one hour tutorial class per week.

**Assessment**
Practical reports/test and assignment/worksheets, 45%; test/examination, 25%.

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**RBM1530 HUMAN BIOSCIENCE 2**

**Campus** St Albans

**Prerequisite(s)**
RBM1519 Human Bioscience 1: Body Structure and Function

**Content**
In this subject, Human Bioscience 2 (Nursing), will be continued in context with nursing in an integrated fashion. Anatomy, physiology and basic concepts in chemistry and microbiology will be taught in an integrated fashion. Content will expand previous knowledge of the organization of the human body, structure and functions of cells and the various types of tissues in the body. Further concepts in chemistry, microbiology, infection control, homeostasis and the role of the neuro-endocrine system in maintaining equilibrium within the body are emphasized. The nervous system and endocrine system are expanded to highlight their regulatory role for control, co-ordination and communication. This will be followed by discussions of other body systems emphasizing the relationship between structure and function and their relevance to Nursing.

**Required Reading**

**Recommended Reading**
RBM1580 FUNCTIONAL ANATOMY 3

Campus St Albans

Prerequisite(s) RBM1514 or RBM1528

Content This subject introduces students to functional anatomy. After a brief introduction to the bones, joints, muscles, vessels and nerves of the body; students study gross anatomy using a regional approach. The following regions are studied in detail: pelvic girdle, gluteal region, hip, thigh, knee, leg, ankle and foot; pectoral girdle, shoulder, arm, elbow, forearm, wrist and hand. The relevance of functional anatomy to health and healing will be highlighted by introducing students to gross anatomy, using models and wet specimens, cross-sectional anatomy using xrays and scans; surface anatomy; acupuncture anatomy; kinesiology, gait analysis, posture, massage, muscle testing, exercise, stretching and awareness through movement and posture techniques. Topics studied in this subject may be interchanged with those of the subject Functional Anatomy 2 and/or 3.


Class Contact Six hours per week for one semester; three hours lecture, three hours practical/tutorial.

Assessment Theory examination 55%, practical examination and oral examination 45%.

RBM1830 DIET THERAPY 1

Campus St Albans

Prerequisite(s) Nil.

Content Dietary assessment techniques, case history taking to assess the dietary habits of clients, dietary nutrient requirements for a balanced and healthy diet, basic counselling skills with respect to the assessment and evaluation of dietary habits and the communication of corrective strategies to clients, codes of ethical practice in dealing with clients.


Class Contact Four hours/week for one semester comprising 3 hours lecture, 1 hour tutorial.

Assessment Examination (3 hour), 50%; Clinic observation journal, 50%.

RBM1910 MICROBIOLOGY FOR CHINESE MEDICINE PRACTITIONERS

Campus St Albans

Prerequisite(s) Nil

Content Types of micro-organism and their place in, on and around us; how micro-organisms grow and how their growth is prevented or controlled in clinical settings; micro-organisms as agents of disease in the individual and in the population; how the body defends itself against microbial invasion and the role of the health practitioner in preventing the spread of disease.


Subject Hours Three hours per week or equivalent for one semester comprising lectures, tutorials and laboratories. Students should reasonably expect to devote additional private contact hours of at least 2-3 times more than the stipulated class contact hours.

Assessment Practical reports and laboratory work (30%); one topic test (15%); one end-of-semester examination (55%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Failed assessment items (practical reports, topic test) may not be re-attempted. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

RBM2061 OCCUPATIONAL HYGIENE SCIENCE

Campus St Albans
Prerequisite(s) Minimal requirement – completion of Diploma of Occupational Health and Safety (or equivalent)

Content This unit covers and reviews basic chemical, microbial and physical concepts, that relate to occupational hygiene. Particular attention is given to sampling strategies and the measurement of exposures that lead to energy transfer to organisms or disruption of energy within organisms


Class Contact Three and half hour lecture equivalents for 12 weeks and one hour tutorial equivalents delivered over 6 weeks online for one semester.

Assessment Assignments, tutorial topic questions and tests.

RBM2161 ERGONOMIC SCIENCE

Campus St Albans
Prerequisite(s) Minimal requirement – completion of Diploma of Occupational Health and Safety (or equivalent)

Content Ergonomics utilizes a number of contemporary inter-disciplines – anatomy and physiology, sociology and psychology, physics and engineering etc., which will extend and merge together toward solving ergonomic problems. Topics will include the maintenance and distribution or impact of energy in the body, application of forces in regard to human movement, the physiology of sense organs, work design, man/machine information exchange; psychological, social, and economic contributions to work. The subject will also cover qualitative measurements, task analysis and job design

Required Reading Bridger RS 2003. Introduction to ergonomics. 2nd edition Taylor and Francis, Kumar S. (Ed) 2000


Class Contact Three and half hour lecture equivalents for 12 weeks and one hour tutorial equivalents delivered online over 6 weeks for one semester.

Assessment Assignments, tutorial topic questions and tests.

RBM2260 DIET AND NUTRITION

Campus St Albans
Prerequisite(s) RBM1528 Human Physiology 2 or equivalent

Content This subject will demonstrate the relationships between gastrointestinal function, diet and human health. The subject examines the gastrointestinal structure and function, body composition, anthropometry, chemical nature of the nutrients, and their roles in body structure and function, energy intake and regulation, metabolism of nutrients, nutritional requirements under various environmental and physiological states, diet and disease, dietary guidelines, hormonal control of digestion, vitamins as antioxidants, nutrition and prevention of disease, role of intestinal flora in nutrition.

Required Reading To be advised by lecturer.

Class Contact Six hours per week for one semester comprising three hours lecture, two hours laboratory and one hour tutorial.

Assessment Tests, 20%; laboratory reports, 30%; final examination, 50%.

RBM2261 PUBLIC AND ENVIRONMENTAL HEALTH

Campus Saint Albans
Prerequisite(s) Minimal requirement – completion of Diploma of Occupational Health and Safety (or equivalent) OR Completion of Level 1 BSc Biomedical Sciences (or equivalent)

Content The decisions a society makes about its public and environment health are based on scientific information to assess the degree and distribution of its risks. These are measures of the determinants of risks the strategies to reduce or remove risk reflect the values of the society. These values are expressed in its customs and laws. The sciences underlying the environmental and public laws include not only biology and chemistry, but others such as psychology, sociology and economics. The role of the public health political process is critically dependent on measurements of health and illness, the compromise between waste and the balance of communal wealth with the perceived impacts of these in drafting public and environmental health laws and their implementation.


Class Contact Two hour online lecture and one hour tutorial equivalents delivered online per week for one semester.

Assessment Assignments, tutorial topic questions and tests.

RBM2360 MEDICAL MICROBIOLOGY

Campus St Albans
Prerequisite(s) RBM1528 Human Physiology 2 or equivalent.

Content Topics include: nature and classification of micro organisms and their growth requirements, microbial genetics, normal flora, host defence mechanisms, immunoresponse, host microbe interaction, infection, sterilisation, disinfection, asepsis, antisepsis, sources and mode of transfer of infectious agents and the compromised host; principles of safe clinical practice, antibiotics, epidemiology, analytical methods and food safety. To investigate application of microorganisms in medicine, industry and biological work products.

Recommended Reading Madigan, MT, Martinko, JM and Parker, J 2003 Brock Biology of Micro organisms. Prentice Hall, Upper Saddle River, NJ.

Class Contact four hours per week for one semester, 2-3 hours lectures, 1-2 hours tutorial/laboratory.

Assessment Assignment, 15%; Oral presentation, 5%; Laboratory reports, 20%; End of semester examination, 60%.

RBM2361 SAFETY PRACTICE

Campus St Albans

Prerequisite(s) RBM2161 Ergonomic Science (equivalent) OR Completion of Level 1 BSc Biomedical Sciences (or equivalent).

Content Skills in making the Occupational Health and Safety unit of a business become part of the organization. These require that there is sufficient understanding of ergonomics – to achieve optimum productivity and cost efficiency and minimum risk of injury, quality management, environmental affairs, behavioural safety and basic financial management.


Class Contact Two hour lecture and one hour tutorial equivalent delivered online per week for one semester.

Assessment Assignments, tutorial topic questions and tests

RBM2517 HUMAN BIOSCIENCE 3

Campus St Albans

Prerequisite(s) RBM1530 Human Bioscience 2.

Content The presentation of major concepts and principles of pathophysiology; illustrating their relationship to a range of common/important acute and chronic illness. This subject supports the topics in concurrent nursing units by providing a scientific basis for understanding disease processes such as cellular injury, inflammation, infection, and shock; by elucidating the underlying mechanisms which results in clinical manifestations; and by presenting the rationale for therapeutic interventions. Microbiology will be discussed with reference to the growth and physiology of micro-organisms, their pathogenic potential, infection control and antibiotic treatment. The pathophysiological principles underlying disorders of major body systems and subsystems will be discussed; for example, in cardiovascular pathophysiology, shock, cardiac failure, hypertension and atherosclerosis will be examined. Other topics covered may include haematology, the respiratory system, renal system, and fluid and electrolyte imbalances, however specific systems in this subject may beinterchanged with those in the fourth semester subject as appropriate.


Subject Hours 40 hours comprising three per week (3 hours of lectures and two-hours of tutorial/laboratory) for eleven weeks.

Assessment Assignment and tutorial/laboratory reports, 40%; examination, 60%.

RBM2524 FUNCTIONAL ANATOMY 3

Campus St Albans

Prerequisite(s) RBM1580.

Content The relevance of functional anatomy to health and healing will be highlighted by studying to clinical anatomy, kinesiology, biomechanics, gait analysis, posture, massage, muscle testing, exercise, stretching, basic soft tissue techniques, and awareness through movement and posture. There will be a particular emphasis on muscle testing and surface anatomy. Topics studied in this subject may be interchanged with those of the subject RBM1514 Functional Anatomy 1 and RBM1580 Functional Anatomy 2.


Class Contact Sixteen hours for one semester.

Assessment Theory examination 55%, practical examination and oral examination 45%.

RBM2527 HUMAN BIOSCIENCE 4

Campus St Albans

Prerequisite(s) RBM2517 Human Bioscience 3

Content This subject furthers the understanding of pathophysiological principles and disease processes introduced in SBM2517 Bioscience 3. Topics will include neoplasia, and disorders of the nervous, endocrine and musculoskeletal systems and gastrointestinal tract. Disorders of the reproductive tract including infertility will be presented. Important genetic disorders such as cystic fibrosis and their modes of inheritance will also be examined. But this content may be interchanged with systems listed in the third semester subject.


**Subject Hours** 40 hours per semester of lectures and tutorial.

**Assessment** Test, 30%; examination, 70%.

**RBM2528 PATHOPHYSIOLOGY IN MIDWIFERY**

**Campus** St Albans

**Pre-requisite(s)** Anatomy & Physiology 1 & 2

**Content** This subject will introduce pathophysiological concepts, principles and disease processes, illustrating their relationship to a range of common and important acute and chronic disease conditions, relevant to midwifery practice. The aims of the subject are: to provide a scientific basis for understanding disease processes such as cellular injury, inflammation and neoplasia; to elucidate the underlying mechanisms which result in clinical manifestation; and to present the rationales for therapeutic interventions. Microbiology will be discussed with reference to the pathogenic potential and infection control of microorganisms. The pathophysiological principles underlying disorders of body systems will be discussed with an emphasis on midwifery; for example, in cardiovascular pathophysiology: hypertensive disorders of pregnancy and shock associated with blood loss will be examined. Other topics to be covered will include disorders of: blood (e.g. anemias) and body defences (e.g. incompatibilities), the renal system, fluid and electrolytes, the reproductive system (e.g. sexually transmitted diseases, infertility), endocrinology, metabolism (e.g. diabetes) and nutrition associated with pregnancy. Genetic and developmental abnormalities of the foetus will also be examined.


**Recommended Reading** Lee, G., & Bishop, B., Microbiology and Infection Control for Health Professionals, (2nd Ed) Pearson Education, Australia; 2002.


**Subject Hours** 56 hours comprising lectures (3 hours/week); laboratories/tutorial (1 hour/week). Laboratory report – 15%, Test – 15%, Examination – 70%.

**RBM2530 PATHOPHYSIOLOGY 1**

**Campus** St Albans

**Prerequisite(s)** RBM1520 or RBM1528 or equivalent

**Content** This subject aims to provide students with an understanding of the control and co-ordination of body systems and the effects of disturbances to body functions. The mental status and some psychosocial factors associated with these processes will be discussed. Students are introduced to major pathologic processes which may affect all parts of the body. Topics include tissue injury, inflammation and repair, normal immune function and deviations from normal, cancer from the molecular level to the whole person, and endocrine dysfunction including impaired cognition such as dementia and impaired co-ordination and control. In the laboratory, students will be introduced to basic laboratory techniques and apply scientific principles to the assessment of dysfunction in humans. Students are also introduced to the research literature, research techniques and the communication of scientific information by a series of presentations. There may be some interchange of topic material relating to specific body systems between RBM2530 and RBM2540 and the specific diseases chosen to illustrate major processes may vary as appropriate.


**Class Contact** Seven hours per week comprising three hours of lectures, three hours of laboratory and one one-hour tutorial for one semester.

**Assessment** Test and examinations, 50%; practical work, 35%; Assignment, 15%. Students are required to obtain a satisfactory grade in all components of the assessment to obtain a pass grade.

**RBM2540 PATHOPHYSIOLOGY 2**

**Campus** St Albans

**Prerequisite(s)** RBM2530 Pathophysiology 1 or equivalent

**Content** This subject primarily examines the effects of dysfunction in particular human body systems, drawing on the knowledge of basic pathological processes and overall regulation of the human body discussed in RBM2530. Overall organ and system dysfunction such as hepatic, renal, cardiovascular and respiratory failure will be discussed. Specific disorders of the following systems will also be discussed: cardiovascular, renal, respiratory, blood, reproductive, gastrointestinal and musculoskeletal. Major disease types and processes such as circulatory shock, atherosclerosis, disorders of acid-base balance and sexually transmitted diseases will be examined and the psychosocial effects of such disorders will be included. Specific diseases will be chosen to illustrate the major concepts as appropriate. Students are introduced to further techniques for assessment of disorders, which may include physical assessments, spirometry, electrocardiography and various biochemical analyses. There may be some interchange of topic material relating to specific body systems between RBM2530 and RBM2540 and the specific diseases chosen to illustrate major processes may vary as appropriate.


Class Contact Seven hours per week comprising three hours of lectures, three hours of laboratory and one one-hour tutorial for one semester.

Assessment Test and examinations, 50%; practical work, 35%; assignment 15%. Students are required to obtain a satisfactory grade in all components of the assessment to obtain a pass grade.

RBM2560 MEDICAL BIOCHEMISTRY

Campus St Albans
Prerequisite(s) RBM1518 Human Physiology 1, RCS1120 Chemistry for Biomedical Sciences B.

Content The aim of this subject is to provide a foundation in biochemical principles with special emphasis on medical conditions and applications. Firstly, foundations of biochemistry will be covered, e.g. biological buffers, structures of amino acids, nucleotides, carbohydrates, lipids, protein and nucleic acids, vitamins and cofactors. The major biochemical pathways will be covered such as glycolysis, TCA cycle, oxidative phosphorylation, gluconeogenesis, lipid, amino acid and nucleotide metabolism. The biochemistry of diseases such as cystic fibrosis, phenylketonuria (PKU), myasthenia gravis, thalassemia, anorexia nervosa and heart disease will be examined. Other topics covered will be DNA replication, RNA transcription, gene regulation, genetic diseases and their diagnosis neurotransmitter metabolism, action and detoxification of drugs/toxins and hormonal regulation. Clinically measured enzymes for diseases will be studied and assayed.


Class Contact Five hours per week, comprising two hours of lectures and three hours of practicals/tutorials for one semester.

Assessment Tutorials and assignments, 25%; practical work (including test), 25%; final examination 50%.

RBM2575 PHYTOPHARMACEUTICS

Campus St Albans
Prerequisite(s) RBM1525 Anatomy and Physiology 2

Content Basic Phytochemistry and Phytopharmacology; Pharmacological Activities – Chinese natural drugs acting on the various body systems; Active Constituents of the Chinese pharmacy; Toxic dosages – LD 50 concept; toxic dosages of the Scheduled Poisons List – Chinese herbs; poisoning records and Chinese medicinal antidotes.


Class Contact The equivalent of two hours per week over two semesters consisting of lectures, tutorials and workshops.

Assessment One assignment, 40%; final examination, 60%. A pass must be gained in each component of assessment.

RBM2580 ADVANCED FUNCTIONAL ANATOMY

Campus St Albans
Prerequisite(s) RBM 1524

Content The relevance of functional and clinical anatomy to health and healing will be highlighted through a detailed study of the mechanics and muscles affecting the movement of joints in the body. This information will be presented and highlighted through the study of a number of different areas including kinesiology, biomechanics, gait analysis, posture, massage, muscle testing, exercise, stretching, basic soft tissue techniques, and awareness through movement and posture. There will be a particular emphasis on muscle testing and surface anatomy. Topics included in the subject may be interchanged with those of the subject RBM 1514 Functional Anatomy 1 and RBM 1524 Functional Anatomy 2

Required Reading Behnke, R.S., 2000, Kinetic Anatomy, Human Kinetics Australia.

Class Contact Six hours per week for one semester comprising three one-hour lectures and one three-hour tutorial/practical session

Assessment Theory examination 55%, practical examination 20%, written assignment 25%

RBM2610 BIOMEDICAL SCIENCES AND SOCIETY

Campus St Albans
Prerequisite(s) Completion of a full first year of tertiary study which must include two semester units in biology/human physiology/human bioscience and two semester units in either psychology or communications or foundations/knowledge.

Content The subject examines images of the human body in society with particular reference to health and disease. There are several themes within this subject. The first theme examines how biomedical science defines health and disease, sanity and mental illness and influences our concepts of the human body. The second theme provides a brief introduction to the evolution of humans and the evolution of consciousness, drawing upon Darwinian theory. Questions such as what it means to be human, what consciousness is and whether there are biologically determined roles for men and women may be discussed. The human genome project will be examined. The third theme is the current image of the human body in society with respect to what is considered healthy and what is considered to be acceptable modification of the human body. Topics which may be discussed here include body image disorders, cloning, tissue engineering, and xenotransplantation.


Class Contact Four hours per week comprising two one hour lectures and one two hour tutorial/seminar session for one semester.
Assessment Two essays, 30% each; one tutorial presentation/debate, 25%; tutorial attendance and participation, 15%.

RBM2750 NUTRITION
Campus Werribee
Prerequisite(s) RBF1310 Biology 2 or equivalent. Students would be expected to have studied or undertake concurrent study in RBF2520 Biochemistry 1.
Content The subject aims to provide an introduction to the principles of human nutrition as a background for further studies in Food Technology (units RBF3731 and RBF3732), to enable students to appreciate the nutritional consequences and responsibilities associated with the provision, processing and development of food and food products. This subject examines: body composition and anthropometry; nutrient requirements and role in body structure and function; energy intake and expenditure; food and nutrient supply; nutritional requirements under different environmental and physiological states; diet and health; dietary guidelines; dietary requirements and special dietary foods.
Class Contact Four hours per week for one semester comprising three hours of lectures and one hour of tutorials.
Assessment Assignments, 30%; final examination, 70%.

RBM2800 CARDIORESPIRATORY AND RENAL PHYSIOLOGY
Campus Footscray Park
Prerequisite(s) RBF1518 Human Physiology 1 and RBF1528 Human Physiology 2.
Content This subject aims to provide students with an understanding of the function, control and co-ordination of the cardiovascular, respiratory and renal systems. The subject will examine cardiac, pulmonary and renal function and normal circulatory, respiratory and renal dynamics. An overview of the co-ordination of these systems will be achieved through an examination of the mechanisms involved in maintaining fluid and electrolyte balance including; the role of membrane structures and capillary dynamics, and the integration of neural, endocrine function in the control of cardiovascular, respiratory and renal systems. Homeostatic control of the cardiac, pulmonary and renal systems will also be examined by investigating their responses to stresses, including exercise, high altitude, increased temperature, spaceflight and aging.
Class Contact Six hours per week for one semester comprising three hours of lectures and three hours of practical and/or tutorial per week.
Assessment Semester examination, 60%; practical reports, 20%; assignment, 20%.

RBM2850 NUTRITIONAL THERAPEUTICS A
Campus St Albans
Prerequisite(s) RBM1820 Nutrition, Society and Communication: RBM1810 Nutritional Biochemistry: RMB1830 Diet Therapy 1.
Content Normal GIT function; signs and pathophysiology of GIT dysfunction; lifestyle effects on normal function; effects of stress on function; pathogenesis of untreated signs and symptoms; nutritional support of liver function; clinical laboratory evaluation of GIT; nutrients required for normal GIT function; use of dietary supplements to restore normal GIT function; contraindications to the use of food supplements.
Class Contact Four hours per week for one semester comprising two hours lecture, two hours tutorial/workshop.
Assessment Two assignments, 2000 words each, 50%; case history, 50%.

RBM2855 NUTRITIONAL THERAPEUTICS B
Campus St Albans
Prerequisite(s) RMB 1830 Diet Therapy 1; RMB 2850 Nutritional Therapeutics A.
Content Symptoms of system dysfunction in the following body systems – skin, respiratory system, nervous system, circulatory system, genitourinary system, immune system, musculoskeletal system and hormonal system; using observation and evaluating case histories; working from case history records; identification of nutritional deficiency within a patients case history; prioritising treatment, including the use of dietary supplements; lifestyle effects that may flow from the treatment; lifestyle effects on normal function.
Class Contact Four hours per week for one semester comprising two hours lecture, two hours tutorial/workshop.
Assessment Examination (3 hours), 50%; case history, 50%.

RBM2910 PATHOPHYSIOLOGY
Campus St Albans
Prerequisite(s) Human Bioscience 2: Body Structure and Function
Content In this subject major concepts and principles of pathophysiology illustrating their relationship to a range of common/important acute and chronic illnesses will be presented. This subject supports the topic in concurrent nursing units by providing a scientific basis for understanding disease processes such as cellular injury, inflammation, infection, neoplasia and shock; by elucidating the underlying mechanisms which result in clinical manifestations; and by presenting the rationales for therapeutic interventions. Microbiology will be discussed with reference to the growth and physiology of microorganisms, their pathogenic potential and infection control. The pathophysiological principles
underlying disorders of body systems will be discussed; for example, in cardiovascular pathophysiology, shock, cardiac failure, hypertension and atherosclerosis, will be examined. Other topics covered will include disorders of the haematological, immunological, respiratory, renal, nervous, endocrine, gastrointestinal, musculoskeletal and reproductive systems; genetic disorders such as cystic fibrosis; and conditions resulting in acid/base and fluid and electrolyte imbalances. The epidemiological basis for distribution of disease conditions in population sub-groups (eg. Indigenous, migrant, socio-economic) will also be examined.

Required Reading

Recommended Reading

Recommended Websites

Subject Hours
Equivalent of 80 hours organised according to teaching mode used. Delivery of this subject is negotiated in relation to the students’ practicum commitments.

Assessment
Laboratory report and topic tests – 40%, examination – 60%.

RBM2911 PATHOPHYSIOLOGY 1

Campus St Albans
Prerequisite(s) RBM1525 Anatomy And Physiology; Or Equivalent.

Content
Emphasis on fundamental pathophysiological processes affecting body and cellular systems; introduction to acute and chronic conditions and common and rare disease profiles; presentation and aetiology of common conditions across the lifespan; treatment regimes and outcomes; pertinent medical terminology and medical case note reporting.

Required Reading

Recommended Reading

Subject Hours
Six hours per week or equivalent for one semester comprising lectures, tutorials and practicals. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment
Two assignments [1500 words each] (10% each); one 2-hour examination (30%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

RBM2912 PATHOPHYSIOLOGY 2

Campus St Albans
Prerequisite(s) RBM2911 Pathophysiology 1; or equivalent

Content
Fundamental pathophysiological processes affecting body and cellular systems. Emphasis on acute and chronic conditions and common and rare disease profiles; presentation and aetiology of common conditions across the lifespan; treatment regimes and outcomes. Pertinent medical terminology and medical case note reporting.

Required Reading

Recommended Reading

Subject Hours
Six hours per week or equivalent for one semester comprising lectures, tutorials and practicals. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

Assessment
Two assignments [1500 words each] (10% each); one 2-hour examination (30%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

RBM3061 EPIDEMIOLOGY

Campus St Albans
Prerequisite(s) RBM2061 Occupational hygiene Science and RBM2161 Ergonomic Science or equivalent subjects OR Completion of Level 1 BSc Biomedical Sciences (or equivalent)

Content
This unit will introduce basic concepts of epidemiology. Some statistics will be covered. – Asking a question – what information do you need?, designing a study, testing hypotheses, designing forms and questionnaires for studies, setting up the data file, summarising data, from sample to population, testing hypotheses about independence, testing hypotheses about dependence, measuring association. The subject topics will describe types of epidemiological study, the research design and the advantages and disadvantages of each study type and covers the measurement of indicators of disease. Other topics covered include reviewing studies that show the causative factors relating to specific diseases; measurement of the association between causative factors and disease; the advantages and disadvantages of different types of epidemiological study; epidemiological findings to show the degree of risk associated with
exposure to specific hazards in industry; and the impact of chance, bias and confounding on findings of epidemiological studies.

Required Reading

Recommended Reading

Class Contact
Two-hour lecture and one hour tutorial equivalents delivered online per week for one semester.

Assessment
Assignment, tutorial topic questions and test

RBM3161 TOXICOLOGY

Campus
St Albans

Prerequisite(s)
RBM2061 Occupational Hygiene Science (or an equivalent subject) OR RBM2530 Pathophysiology 1 (or equivalent)

Content
Topics covered in this subject include mechanisms of action, biotransformation pathways and metabolic bioactivation, toxicokinetics and protection of cellular toxicity by antioxidants. Descriptions of genotoxins, teratogens and carcinogens are included with topics showing specific organ toxins.

Required Reading

Recommended Reading

Class Contact
Two hour online lecture and one hour tutorial equivalents delivered online per week for one semester.

Assessment
Based on assignments, tutorial topic questions and essays.

RBM3171 ENDOCRINOLOGY AND REPRODUCTION

Campus
Footscray Park

Prerequisite(s)
RBM1528 Human Physiology 2 or equivalent

Content
This subject examines the mechanisms by which hormones exert their effects on metabolism, renal function, reproductive function and growth. This subject encompasses the basic principles involved in understanding the mechanisms of hormone action and specifically concentrates on the following areas. Mechanisms of hormone action: peptide hormones and steroids; hormonal control of metabolism; the importance of renal function in maintaining homeostasis; reproductive endocrinology; growth and development; hormonal and metabolic control of growth.

Required Reading

Class Contact
Two hours per week for one semester comprising 20 hours of lectures and 6 hours of practical work.

Assessment
Based on assignments, practical reports and an end-of-semester examination.

RBM3261 RISK MANAGEMENT

Campus
St Albans

Prerequisite(s)
RBM2261 Public and Environmental Health (or equivalent)

Content
The terms of risk analysis are specifically defined to show that risk this is a process of risk assessment as well as risk management. For risk management the risk aversion and risk assessment need to be qualified as being distinct from risk assessments that are more quantified. With regard to risk management there are economic – to include the more valuable, beneficial, cost effective, activities; personal – try to avoid those activities which you did not prefer and; communal – what is done is consistent with what the community expects (risks in the case of risk management.

These definitions levels are examined in this subject.

Required Reading

Recommended Reading

Class Contact
Two hour lecture and one hour tutorial equivalents delivered online per week for one semester.

Assessment
Based on assignments, and tutorial topic questions and essays.

RBM3264 ADVANCED NERVE AND MUSCLE PHYSIOLOGY

Campus
Footscray Park

Prerequisite(s)
RBM2800 Cardiorespiratory and Renal Physiology or equivalent

Content
The aim of the subject is to examine in detail the mechanisms of nerve and muscle function. Topics include: physico-chemical principles underlying nerve and muscle function; behaviour of excitable cells; mechanisms of muscle contraction; neural influences over muscles and muscle fibre types; muscle fibre recruitment; metabolic processes in active muscle; neuromuscular fatigue; co-ordinating motor activity, and diseases of the nervous and muscular systems. Research techniques in nerve and muscle physiology.

Required Reading
Nerve and muscle physiology section of any basic physiology textbook.

Recommended Reading

Class Contact
Two hours of lectures, one one-hour tutorial and three hours of practical work each week for one semester.

Assessment
Based on laboratory reports, tutorial assignments and an end-of-semester examination.

RBM3361 OCCUPATIONAL HEALTH AND SAFETY PROJECT

Campus
St Albans

Prerequisite(s)
RBM2361 Safety Practice OR Completion of level 2 Biomedical Sciences (or equivalent)

Content
This subject is based on setting up, conducting and successfully completing, an occupational health and safety project. Methodologies in ergonomics, incident investigation, occupational hygiene, risk analysis and management, system safety etc., are
demonstrated through problem formulation and problem definition, project management, publication of project outcomes.

**Required Reading**


**Recommended Reading**


**Class Contact**

One hour lecture and case study tutorial equivalents delivered online per week for the first half of a semester. The final half of the semester will concern student completion of their project reports.

**Assessment**

Based on tutorial topic questions assignments and a project report (50%).

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**RBM3515 CLINICAL PHARMACOLOGY AND PATHOPHYSIOLOGY**

**Campus** St Alans

**Prerequisite(s)** RBM2570 Phytopharmaceutics

**Content**

Fundamental pathophysiology, commonly used pharmaceuticals, and pertinent medical terminology with particular emphasis on understanding the actions of specific pharmaceuticals and the identification of potentially life-threatening conditions.

**Required Reading**


**Recommended Reading**


**Class Contact**

The equivalent of six hours per week for one semester consisting of lectures, tutorials and clinical observation in appropriate health care settings.

**Assessment**

One assignment, 25%; one examination, 50%; and one clinical report, 25%.

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**RBM3550 GROWTH AND EARLY DEVELOPMENT**

**Campus** St Alans

**Prerequisite(s)** RBM2540 Pathophysiology 2 or equivalent.

**Content**

This subject builds on the work of first and second year Human Bioscience. The overall concept to be studied is the process of human development and aging and the physiological and pathological changes that occur throughout the life cycle. This subject presents the major regulating systems of the body and thus involves advanced study in the areas of neurological, hormonal and reproductive changes. Life stages from the embryo to senescence will be studied and environmental, societal, psychological and cultural influences will also be discussed. The subject allows exposure to a range of scientific techniques through the laboratory component and may include a minor project.

**Required Reading**

To be advised by lecturer.

**Class Contact**

Eight hours per week comprising three hours of lectures and five hours of workshop/laboratory for one semester.

**Assessment**

Examination 55% and project/practical work 45%. Students are required to obtain a satisfactory grade in all components of the assessment to obtain a pass grade.

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**RBM3560 GROWTH, DEVELOPMENT AND AGING**

**Campus** St Alans

**Prerequisite(s)** RBM3550 Growth and Early Development or equivalent.

**Content**

This subject continues on the theme of development and ageing and the physiological processes that occur, building on RBF3550 Advanced Bioscience 5A. This includes the exploration of changes that occur throughout the life cycle and interaction with the environment. The subject allows exposure to a range of scientific skills and techniques through the laboratory/workshop component and includes a minor project.

**Required Reading**

To be advised by lecturer.

**Class Contact**

Eight hours per week comprising three hours of lectures and five hours of workshop/laboratory work for one semester.

**Assessment**

Examination 55% and laboratory work and project 45%. Students are required to obtain a satisfactory grade in all components of the assessment to obtain a pass grade.

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**RBM3590 ADVANCED EXPERIMENTAL TECHNIQUES**

**Campus** St Alans

**Prerequisite(s)** All year two core units (RBM2800, RBM2260, RBM2530, RBM2540), RBM2590 Functional Histology and RBM2560 Medical Biochemistry.

**Content**

This subject introduces students to a variety of histological techniques and the role they play in medical research. There will be a particular emphasis on students receiving practical skills in a histology laboratory setting. Students will obtain skills in tissue sampling, preparation of fixed and frozen sections for light and electron microscopy, basic tissue staining, immunohistochemistry and in situ hybridization. Students will be introduced to light microscopy, confocal microscopy, transmission and scanning electron microscopy, morphology and morphometry.

**Required Reading**


**Class Contact**

Six hours per week for one semester comprising three hours of lectures and three hours of practicals.

**Assessment**

Theory examination 55%, practical examination/assignment, 45%.

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**RBM3610 BIOMEDICAL SCIENCE, ETHICS AND VALUES**

**Campus** St Alans

**Prerequisite(s)** Successful completion of a full first year of tertiary study and appropriate subject(s) in human biology or psychology at second year tertiary level.

**Content**

Students will be introduced to ethical practice in animal and human research, incorporating the various policies and codes of practice for conducting research within Victoria University. This subject discusses, with examples, how scientists have investigated the functioning of the human body in health and disease: in-vitro experiments, forced or voluntary participation in experimentation, the use of animal models etc. The ethics of these practices are examined – how do we justify or choose the practices which elucidate the function of the human body? Who regulates the conduct of research? Can research into humans be objective and is objectivity a gendered concept? Issues arising from the practice of biomedical sciences will be examined, such as in-vitro fertilisation,
the human genome project, genetic screening, competition and fraud, and toxicity testing. Reference may also be made to ethical practice in sociological and psychological research. The selected topics may vary as appropriate.


**Class Contact** Four hours per week comprising two one hour lectures and one two-hour tutorial/seminar session for one semester.

**Assessment** One essay, 30%; one VU animal or human ethics proposal 30%, one tutorial presentation/debate, 25%; tutorial attendance and participation, 15%.

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**RBM3620 CHALLENGING THE SCIENTIFIC PARADIGM**

**Campus** St Albans

**Prerequisite(s)** RBF2922 Science and Society or an appropriate unit from the health sciences or complementary therapies.

**Content** This subject examines how biomedical science in the twentieth century is under question. Alternative theories of the functioning of the human body will be explored – for example, from the complementary theories and from non-Western cultures. Critiques of complementary therapies from a biomedical sciences viewpoint and critiques of biomedical science from a complementary therapies viewpoint will be examined to address questions such as whether the two perspectives overlap and whether there can be a synthesis of biomedical science with aspects of complementary therapies. Environmental philosophy will be drawn upon to examine how humans perceive themselves in relation to the environment in general and other species in particular. Some human-centred versus eco-centric views will be explored.


**Class Contact** Four hours per week comprising two one-hour lectures and one two-hour tutorial/seminar session for one semester.

**Assessment** Two essays, 60%; one tutorial presentation, 25%; tutorial attendance and participation, 15%.

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**RBM3630 SCIENCE, MEDIA AND COMMUNICATION**

**Campus** St Albans

**Prerequisite(s)** ACC1047 Culture and Communication; ACC1043 Communications B or equivalent.

**Content** In this subject, students will be introduced to the forms by which information about biomedical sciences and health is communicated via the media. A critical understanding will be developed of the ways in which media information is used to persuade individuals about the value or otherwise of biomedical information to market products and influence behaviour will be examined with particular attention paid to the marketing of pharmaceutical products, medical practice, health education programs and complementary therapies. Students will examine materials such as newspapers, popular magazines concerned with health, health education material and examples of the scientific reports of public institutions concerned with the biomedical sciences.

**Required Reading** To be advised by lecturer.

**Class Contact** Four hours per week comprising two one-hour lectures and one two-hour seminar session for one semester.

**Assessment** Assignment, 40%; class presentation, 20%; media scrapbook and critical journal, 40%.

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**RBM3640 ADVANCED NEUROSCIENCES**

**Campus** St Albans

**Prerequisite(s)** RBM2530 Pathophysiology.

**Content** This subject aims to provide insights into the most important current ideas in the study of neuroanatomy, neurophysiology and developmental neurobiology. This subject provides an advanced series of lectures in specialised areas of neuroscience research. The content of the subject may vary with the expertise and research interests of the lecturing staff.

**Required Reading** Various scientific journals

**Class Contact** Four hours of lectures per week for one semester

**Assessment** Theory examination 55%, practical examination/assignment 45%

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**RBM3650 ADVANCED REPRODUCTION AND DEVELOPMENT**

**Campus** St Albans

**Prerequisite(s)** RBM2540 Pathophysiology.

**Content** This subject provides an advanced series of lectures examining current research questions in the area of reproduction and development. Topics include: maternal recognition of pregnancy via foetal signalling and the resultant maternal response during the period of implantation; development of the embryonic neural crest, including epithelial-mesenchymal transformation, migration, and contribution to mature differentiated cell types; the role of steroid hormones in placental function; the role of autocrine and paracrine growth factors in the development of the foetal lung; the role of various extracellular matrix cytokines in the breakdown of the foetal membranes at birth. The content of this subject may vary with the expertise and research interests of the lecturing staff.

**Required Reading** Various scientific journals

**Class Contact** Three hours of lectures per week for one semester

**Assessment** Theory examination 55%, practical examination/assignment 45%

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**RBM3660 HUMAN DEVELOPMENTAL AND CLINICAL GENETICS**

**Campus** St Albans

**Prerequisite(s)** RBM 2540 Pathophysiology 2 and either RBM 2560 Medical Biochemistry or RBF2330 Cell Biology

**Content** The subject is designed to introduce students to developmental and clinical genetics with a specifically human focus. The major emphasis is on the importance of gene expression in normal development and variation, and the contribution of genetic abnormalities to disease. Topics may include: The role of genes in development; differentiation and congenital malformation; human genetic principles such as assortment and segregation of genes, genetic variation and genetic defects, the importance of genetic heterogeneity, mendelian inheritance and gene frequencies in populations; Diagnosis and classification of genetic disorders; prenatal screening and diagnosis; disorders with genetic and environmental associations.

**Required Reading** Research and review articles as appropriate

**Class Contact** Three hours of lectures and three hours practical work for one semester
RBM3670 MOLECULAR PSYCHOLOGY

Campus St Albans
Prerequisite(s) RBM3550 Growth and early development or equivalent
Content This subject explores the relationships between Molecular Biology, Psychology, Anatomy and Genetics and Human Behaviour and Emotions. These relationships will be discussed in light of current research findings and current literature. The lecture series will explore the current zeitgeist of the medical and scientific community with respect to Molecular psychology. e.g.; Topics may include explanation of brain anatomy and psychology and anti-social behaviour patterns. e.g.; violent criminal behaviour.
Required Reading Research and review articles as appropriate
Class Contact Three hours of lectures 1 semester
Assessment Theory examination 50%, assignments 50%

RBM3720 IMMUNOLOGY

Campus St Albans
Prerequisite(s) RBM2360 Medical Microbiology 1 or RBM2530 and RBM2540 Pathophysiology 1 & 2.
Content The aim of this subject is to provide students with an understanding of theoretical and practical bases of immunology. Subject topics include: active and passive immunity, components of the immune system, the immune response, immunological techniques and their application, molecular diagnostics including the use of monoclonal antibodies. The subject will be explored as a basic science with applications in the agriculture industry, food science, environmental science and medical science.
Class Contact Six hours per week comprising three hours of lectures and three hours of laboratory/tutorial work for one semester.
Assessment Assignments, 20%; practical work, 30%; final examination, 50%.

RBM3750 NUTRITION AND PUBLIC HEALTH

Campus Werribee
Prerequisite(s) SBF2750 Nutrition, or RBM2260 Diet and Nutrition
Content The aim is to study the role of nutritional factors in aetiology of significant diseases and processes involved in deriving public health data and statistics. Nutritional factors in the aetiology of significant disease conditions, designing and delivering nutritional education and intervention programs, case studies in nutritional education and intervention programs, locating public health data and health epidemiology.

Class Contact Four hours per week comprising lectures/tutorials for one semester.
Assessment Assignments, 40%; final examination, 60%.

RBM3800 PHARMACOLOGY

Campus St Albans.
Prerequisite(s) RCS1100 Chemistry for Biological Sciences, RBM2560 Medical Biochemistry, RBM1518 and RBM1528 Human Physiology 1 and 2, or equivalent units.
Content The unit examines the pharmacodynamic processes of drug action, molecular pharmacology and specific drug therapies. Aspects relating to both medicinal chemistry, toxicity testing, clinical trials and requirements for the admission of new drugs are covered in topics that relate to new drug development. Pharmacokinetics, pharmacogenetics, sensitivity and resistance to drug therapies are further topics that address variation in drug outcomes. Social drug abuse and types of drug dependence are also discussed in this unit.
Class Contact Five hours per week over one semester based on two hours of lecture, one hour of tutorial and two hours of practical sessions.
Assessment Assignment 20%; practical reports 35%; end of semester examination 45%.

RBM3810 WELLNESS 1

Campus St Albans
Prerequisite(s) RBM2530Pathophysiology 1 and RBM2540 Pathophysiology 2 or equivalent, or RBM2800 Cardiorespiratory and Renal Physiology plus other relevant second year units at the discretion of the co-ordinator.
Content Module A: This unit introduces the concepts of mind, body and spirit. These areas are explored from psychological, physiological, philosophical and sociological perspectives. Current literature will be used to introduce the areas of psychophysiology and psychoneuroimmunology and their connections to the mind/body/spirit paradigm. The ethics of human research and evaluation will be discussed throughout the series of lectures. In addition, students will be introduced to basic methods of information gathering with respect to the mind-body-spirit paradigm including the evaluation of its status in individuals. Further, aspects of psychophysiology and psychoneuroimmunology such as stress and disease, sexuality and the impact of environment on the health of the mind, body and spirit are examined. Current research literature in the area will be analysed.
Module B: Students will be introduced to fundamental concepts of health and wellness. The difference between professional/scientific concepts and lay concepts will be explored. Wellness promotion will be presented primarily in the context of established public health approaches utilised in health education, promotion and prevention including medical, behavioural, educational, social and empowerment strategies. Some of the dilemmas and pitfalls in health promotion will be canvassed. Students will also be introduced to base concepts of occupational health and safety and workplace health promotion. Risk assessment, material safety, manual handling and relevant legislation will be discussed. Context will be provided by guest speakers from relevant organisations.
**RBM3820 WELLNESS 2**

**Campus** St Albans  
**Prerequisite(s)** RBM3810 Wellness 1.  
**Content** Module A: The subject extends the material covered with respect to Mind, Body and Spirit, and explores complimentary therapies, techniques, treatments and strategies that are used to promote and maintain health and wellbeing as well as treat disease. Module B: Students will be introduced to the systematic planning of health and wellness education and promotion. Examples and discussion will be provided in the context of relevant issues, for example, community participation, the role of professionals, young people and STD's/AIDs, alcohol use, and the role of the media in health. Guest speakers from health-promoting organisations will be provided to explore health education and promotion issues. Examples include the local government planning process/healthy cities approach, Alzheimers Disease, Eating disorders and the Quit campaign. Other relevant speakers/issues may be discussed as appropriate. An individual health promotion project within the unit requires students to assess their own health/wellness needs, then design, implement and evaluate an appropriate program for themselves over the semester. Students are further strongly encouraged to take the third year project in conjunction with this unit, and to apply their skills to the development of the project as a health promotion and education exercise oriented to the workplace or conducted within an organisation that promotes health.  
**Class Contact** Module A: Three hours per week for one semester, comprising two hours of lectures and one hour of tutorial. Module B: Three hours per week for one semester comprising one and a half hours of lectures and one and a half hours tutorial/seminar.  
**Assessment** Assignment/tutorial work, 25%; examination, 25% for each of Module A and B.

**RBM3850 NUTRITIONAL THERAPEUTICS C**

**Campus** St Albans  
**Prerequisite(s)** RBM2850 and RBM2855 Nutritional Therapeutics A and B.  
**Content** Diet, novel and common food supplementation support for the following – energy metabolism dysfunction, neurological dysfunction, behavioural disorders, life threatening illnesses; laboratory testing for system dysfunction; formulation and costing of supplementation programs to meet patient needs; regulation and boundaries when working with practitioners who treat patients with life threatening illnesses; Analysis of patient follow-up and reformulation of treatment protocols where required.  
**Class Contact** four hours per week for one semester comprising two hours lecture, two hours tutorial/workshop.  
**Assessment** Examination (3 hours), 50%; case history, 50%.

**RBM3855 NUTRITIONAL THERAPEUTICS D**

**Campus** St Albans  
**Prerequisite(s)** Completion of 2nd year; RBM 3850 Nutritional Therapeutics C.  
**Content** Diet, novel and common food supplementation support, laboratory testing for system dysfunction, formulation and costing of supplementation programs to meet patient needs: Analysis of patient follow-up and reformulation of treatment protocols.  
**Class Contact** four hours per week for one semester comprising two hours lecture, two hours tutorial/workshop.  
**Assessment** Examination (3 hours), 50%; case history, 50%.

**RBM3910 PROJECT**

**Campus** Footscray Park, St Albans, Werribee  
**Prerequisite(s)** Successful completion of the second year of the Biomedical Sciences degree  
**Content** Third year student projects provide students with an opportunity to select and undertake either (a) a brief research project in an area of interest with members of the Biomedical Sciences staff; or (b) a work-based placement in the industry he/she intends to enter. Both the research and work-based placements enable the student to undertake a structured work experience program as an integral part of their degree course. Gaining
practical experience in their chosen field enables students to test interest and ability in these areas. **Selection** The number of Project places will be limited by the number of available projects. Places will be allocated on the basis of academic merit. It would be expected that students wishing to do Project would have a Credit average and be in their final semester of the course. 

**Required Reading** Selected material as advised by the project supervisor. 

**Class Contact** Six hours per week for one semester comprising laboratory work or work-based placement. 

**Assessment** 20% project proposal; 80% final report. 

**RBM3921 WESTERN MEDICAL DIAGNOSIS AND INTERVENTIONS 1** 

**Campus** St Albans. 

**Prerequisite(s)** RBM2912 Pathophysiology 2; or equivalent. 

**Content** Development of material covered in pathophysiology with particular emphasis on basic pharmacology and toxicology concepts; routes of administration; mechanisms of actions; distribution, metabolism and excretion; indications and contraindications; adverse reactions of the major classes of drugs; resistance and tolerance; interactions with herbs and nutrients; plant contaminants; Australian drugs and poisoning schedules and reporting mechanisms. A western medical emphasis will be given to the treatment of conditions presented in the CM clinical specialties. Contemporary medical and psychiatric conditions are included. 


**Assessment** Two assignments (1500 words each) (10% each); one 2-hour examination (30%). To obtain at least a Pass in the supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.
FACULTY OF HEALTH, ENGINEERING AND SCIENCE

RBM3950 NUTRITIONAL THERAPY IN PRACTICE 1

Campus St Albans
Prerequisite(s) HHN0021 Counselling Skills for Natural Therapies.
Content Nutritional treatment for patients at critical life stages; managing patients with challenging nutritional and behavioural characteristics, eg addiction, non-compliance, aggression, eating disorders, vulnerable client groups; ethical dilemmas in clinical practice, patient record keeping.
Class Contact Minimum of 90 hours supervised clinical practice. Assessment Examination (3 hours), 50%; case history, 50%.

RBM3955 NUTRITIONAL THERAPY IN PRACTICE 2

Campus St Albans
Prerequisite(s) RBM3950 Nutritional Therapy in Practice 1; RBM3850 Nutritional Therapeutics C.
Content Nutritional treatment for patients at critical life stages, managing patients with challenging nutritional and behavioural characteristics, eg addiction, non-compliance, aggression, eating disorders, vulnerable client groups; ethical dilemmas in clinical practice; patient record keeping.
Class Contact Minimum 90 hours supervised clinical practice. Assessment Examination (3 hours), 50%; case history, 50%.

RBM3970 OPERATING A CLINICAL PRACTICE

Campus St Albans
Prerequisite(s) Nil.
Content Factors in establishing and operating a clinical practice; legal, professional and insurance issues, including personal and professional indemnity and OSHS regulations; business banking and accountancy, including taxation laws and essential business record keeping and reporting requirements; basic marketing techniques; codes of ethics and practice; using media in practice; to find appropriate employment.
Class Contact four hours per week for one semester comprising two hours lecture, two hours workshop. Assessment Examination (3 hours), 40%; assignment 2500 words each, 40%; written application and interview, 20%.

RBM4923 WESTERN MEDICAL DIAGNOSES AND INTERVENTIONS 3

Campus St Albans
Prerequisite(s) RBM3922 Western Medical Diagnoses and Interventions 2; or equivalent.
Content Development of material covered in pathophysiology with particular emphasis on the identification of potentially life-threatening acute and chronic conditions. An understanding of the main pathology tests and diagnostic techniques; reinforcement of skills in using the stethoscope, sphygmomanometer, otoscope, organ palpation and other basic procedures employed by the health care professional. A systems approach is used to present a western medical emphasis on conditions presented in the CM clinical specialties. Contemporary medical and psychiatric conditions are included.

**Subject Hours** Six hours per week or equivalent for one semester comprising lectures, tutorials and practicals. Students should reasonably expect to devote additional private contact hours of at least three times more than the stipulated class contact hours.

**Assessment** Two assignments (2500 words minimum) (10% each); one 2-hour examination (30%). To obtain at least a Pass in the unit, normally all components of assessment must be attempted and passed. Where the final examination is failed, a supplementary examination may be offered. The maximum possible mark on the supplementary examination will be 50%. This unit is a hurdle requirement. All assessment items address the CGA levels as indicated in the Learning Outcomes.

**Recommended Reading**

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**RCA1020 BASIC AERONAUTICAL KNOWLEDGE**

**Campus** Footscray Park

**Prerequisite(s)** RCA1010 (The Civil Aviation Safety Authority also expects that students will have flown five hours before attempting this subject).

**Content** Basic Aeronautics, engineering and mechanics sufficient to pass the BAK test as required by the CASA.

**Required Reading** As required by the Lecturer in charge.

**Recommended Reading** As recommended by the Lecturer in charge.

**Class Contact** The equivalent of one four hour seminar per week for one semester. A concentrated mode of delivery may be used. Students may be required to attend classes off campus. Students should be aware that they are expected to obtain five hours flying experience on their own account before attempting the examination this subject.

**Assessment** One final (principally multiple choice) examination worth 100% as required by the Civil Aviation Safety Authority.

**RCA2020 METEOROLOGY AND HUMAN FATORS FOR THE CPL**

**Campus** Footscray Park

**Prerequisite(s)** RCA1020 Basic Aeronautical Knowledge (the Civil Aviation Safety Authority requires students to complete the General Flying Proficiency Test before attempting this subject).

**Content** Aircraft navigation theory, and legal theory as required for the Commercial Pilot’s Licence theory subjects ‘CHUF Human Factors (Aeroplane and Helicopter) for the CPL’ and ‘CMET Meteorology (Aeroplane and Helicopter) for the CPL’ examined by the Civil Aviation Safety Authority.

**Required Reading** As required by the Lecturer in charge.

**Recommended Reading** As recommended by the Lecturer in charge.

**Class Contact** The equivalent of one four hour seminar per week for one semester. Students may be required to undertake multiple seminars each week, for less than one semester.

**Assessment** Two Multiple Choice Examination as required by the Civil Aviation Safety Authority.

**RCA2030 NAVIGATION AND FLIGHT AND AIR LAW FOR THE CPL**

**Campus** Footscray Park

**Prerequisite(s)** RCA1020 Basic Aeronautical Knowledge (the Civil Aviation Safety Authority requires students to complete the General Flying Proficiency Test before attempting this subject).

**Content** Aircraft navigation theory, and legal theory as required for the Commercial Pilot’s Licence theory subjects ‘CNV Navigation (Aeroplane and Helicopter) for the CPL’ and ‘CLWA Flight rules and Air Law (Aeroplane and Helicopter) for the CPL’ examined by the Civil Aviation Safety Authority.

**Required Reading** As advised by the Lecturer in Charge of the subject.

**Recommended Reading** As advised by the Lecturer in Charge of the subject.
Class Contact The equivalent of one four hour seminar per week for one semester. Students may be required to undertake multiple seminars each week, for less than one semester.
Assessment Two Multiple Choice Examination as required by the Civil Aviation Safety Authority.

RCA2040 AERODYNAMICS FOR THE CPL
Campus Footscray Park
Prerequisite(s) RCA1020 Basic Aeronautical Knowledge (the Civil Aviation Safety Authority requires students to complete the General Flying Proficiency Test before attempting this subject).
Content Aircraft navigation theory, and legal theory as required for the Commercial Pilot’s Licence theory subjects ‘CADA Aerodynamics (Aeroplane and Helicopter)’ for the CPL’ examined by the Civil Aviation Safety Authority.
Required Reading As advised by the Lecturer in Charge of the subject.
Recommended Reading As advised by the Lecturer in Charge of the subject.
Class Contact The equivalent of one four hour seminar per week for one semester. Students may be required to undertake multiple seminars each week, for less than one semester.
Assessment Two Multiple Choice Examination as required by the Civil Aviation Safety Authority.

RCA2050 AIRCRAFT GENERAL KNOWLEDGE FOR THE CPL
Campus Footscray Park
Prerequisite(s) RCA1020 Basic Aeronautical Knowledge (the Civil Aviation Safety Authority requires students to complete the General Flying Proficiency Test before attempting this subject).
Content Aircraft navigation theory, and legal theory as required for the Commercial Pilot’s Licence theory subjects ‘CAYA’ General Knowledge for the CPL’ examined by the Civil Aviation Safety Authority.
Required Reading As advised by the Lecturer in Charge of the subject.
Recommended Reading As advised by the Lecturer in Charge of the subject.
Class Contact The equivalent of one four hour seminar per week for one semester. Students may be required to undertake multiple seminars each week, for less than one semester.
Assessment Two Multiple Choice Examination as required by the Civil Aviation Safety Authority.

RCA2060 OPERATIONS PERFORMANCE AND FLIGHT PLANNING FOR THE CPL
Campus Footscray Park
Prerequisite(s) RCA1020 Basic Aeronautical Knowledge (the Civil Aviation Safety Authority requires students to complete the General Flying Proficiency Test before attempting this subject).
Content Aircraft navigation theory, and legal theory as required for the Commercial Pilot’s Licence theory subject ‘CFPA CPL Operations Performance and Planning’ examined by the Civil Aviation Safety Authority.
Required Reading As advised by the Lecturer in Charge of the subject.
Recommended Reading As advised by the Lecturer in Charge of the subject.
Class Contact The equivalent of one four hour seminar per week for one semester. Students may be required to undertake multiple seminars each week, for less than one semester.
Assessment One Multiple Choice Examination as required by the Civil Aviation Safety Authority.

RCA3010 INSTRUMENT RATING (IREX)
Campus Footscray Park
Prerequisite(s) RCA 2020, RCA 2030, RCA 2040, RCA 2050, RCA 2060.
Content Aircraft flight planning theory sufficient to complete the IREX examination set by the Civil Aviation Safety Authority.
Class Contact 1 x three hour workshops per week for one semester, or equivalent.
Assessment Examination as required by the Civil Aviation Safety Authority.

RCA3030 METEOROLOGY AND HUMAN FACTORS FOR THE ATPL
Campus Footscray Park
Prerequisite(s) RCA 2020, RCA 2030, RCA 2040, RCA 2050, RCA 2060.
Content Meteorology and Human Factors sufficient to meet the requirements of the CASA examinations in these topics.
Required Reading To be advised by lecturer.
Recommended Reading To be advised by lecturer.
Class Contact The equivalent of one three hour seminar each week for one semester.
Assessment One 90 minute multiple choice examination and one 60 minute multiple choice examination.

RCA3040 FLIGHT PLANNING FOR THE ATPL
Campus Footscray Park
Prerequisite(s) SCA2051, SCA2053, SCA2055, SCA2057, SCA2059, SCA2061, SCA2063
Content Aircraft flight planning theory sufficient to pass the Air Transport Pilot’s Licence theory subject ‘ATPL Flight Planning’ examined by the Civil Aviation Safety Authority.
Required Reading Thom, T. et al, 2000, Aeroplane Operations Performance and Planning for the Air Transport Pilot, Aviation Theory Centre, Melbourne. Subject study notes as provided by the subject lecturer.
Class Contact 1 x three hour workshops per week for one semester, or equivalent.
Assessment Examination as required by the Civil Aviation Safety Authority.

RCA3050 NAVIGATION AND AIR LAW FOR THE ATPL
Campus Footscray Park
Prerequisite(s) RCA 2020, RCA 2030, RCA 2040, RCA 2050, RCA 2060.
Content Navigation and flight and air law sufficient to meet the requirements of the CASA examinations in these topics.
Required Reading To be advised by lecturer.
Recommended Reading To be advised by lecturer.
Class Contact The equivalent of one four hour seminar each week for one semester.
Assessment Two 90 minute multiple choice examinations.

RCA3060 AERODYNAMICS AND AIRCRAFT SYSTEMS FOR THE ATPL
Campus Footscray Park
Prerequisite(s) TBA
Content Aircraft aerodynamics and systems theory sufficient to pass the Air Transport Pilot’s Licence theory subject ‘ATPL Aerodynamics and Systems’ examined by the Civil Aviation Safety Authority.
Required Reading Thom, T. et al, 2000, Aeroplane Operations Performance and Planning for the Air Transport Pilot, Aviation Theory Centre, Melbourne. Subject study notes as provided by the subject lecturer.

Class Contact 1 x three hour workshop per week for one semester or equivalent.

Assessment Examination as required by the Civil Aviation Safety Authority.

RCA3070 PERFORMANCE AND LOADING FOR THE ATPL

Campus Footscray Park

Prerequisite(s) Nil.

Content Aircraft performance theory, and loading theory sufficient to pass the Air Transport Pilot’s Licence theory subject ‘ATPL Performance and Loading’ examined by the Civil Aviation Safety Authority.


Class Contact 1 x three hour workshop per week for one semester or equivalent.

Assessment Examination as required by the Civil Aviation Safety Authority.

RCM1114 INTRODUCTION TO COMPUTING AND THE INTERNET

Campus Footscray Park, Hong Kong, Malaysia, Singapore

Prerequisite(s) Nil.

Content Algorithms for computational tasks, Overview of the Internet, Internet Connections, Web Design and Authoring, Characteristics and functions of browsers, Resources on the Internet, Surfing the Internet, Future of the Internet, Scripting Languages, The law and computer crimes, Reliability and safety of software systems, Australian Computer Society code of ethics.

Required Reading Ibrahim, Z., 2000, Mastering the Internet and HTML, Prentice Hall.


Class Contact Three hours per week for one semester, comprising one hour lecture and two hour laboratory/tutorial.

Assessment Final examination 70%; assignment/laboratory work, 30%.

RCM1115 COMPUTER SYSTEMS AND ARCHITECTURE

Campus Footscray Park, Hong Kong

Prerequisite(s) Nil.


Required Reading Nil.

Recommended Reading Brooksheer, J.G., 2005, Computer Science: An Overview, 5th edn, Addison-Wesley.

Class Contact Four hours per week for one semester, comprising two one-hour lectures and two one-hour laboratory/tutorial.

Assessment Final examination, 70%; assignment and tests, 30%.

RCM1211 DATABASE SYSTEMS 1

Campus Footscray Park, Hong Kong

Prerequisite(s) RCM1115 Computer Systems and Architecture; RCM1311 Programming 1.


Recommended Reading Data, C.J. 2004, An Introduction to Database Systems, 8th edn, Addison-Wesley.

Class Contact Four hours per week for one semester, comprising two one-hour lectures and two one-hour laboratory/tutorial.

Assessment Final examination, 70%; assignment and tests, 30%.

RCM1311 PROGRAMMING 1

Campus Footscray Park, Hong Kong

Prerequisite(s) Nil.

Content Introduction to object oriented programming. Basic constructs of a programming language; sequence, selection and iteration. Use of classes and objects. Applets.


Class Contact Four hours per week for one semester, comprising two hours of lectures and two hours of laboratory/tutorial.

Assessment Final examination, 80%; assignment, 10% and practical work, 10%.

RCM1312 PROGRAMMING 2

Campus Footscray Park, Sydney, Hong Kong, Tianjin

Prerequisite(s) SCM1311 Programming 1.

Content Structured program development through user defined classes. Array, vectors and string data types. File I/O. Inheritance, exceptions, graphical user interface.

Recommended Reading Lewis, J. and Loftus, W., 2003, Java Software Solutions, 3rd edn, Addison-Wesley.

Class Contact Four hours per week for one semester, comprising two hours of lectures and two hours of laboratory/tutorial.

Assessment Final examination, 70%; assignment, test and practical work, 30%.

RCM1613 APPLIED STATISTICS 1

Campus Footscray Park, Sydney

Prerequisite(s) Nil.

Content Displaying and describing data. Control charts, Time series, Experimental design, Survey designs.

Required Reading Albright, Winston, Zappe, Data Analysis for Managers, 2nd edn, Thompson.


Class Contact Four hours per week for one semester, comprising two one-hour lectures and two one-hour tutorials.

Assessment Final examination, 60%; tests, 40%.
RCM1614 APPLIED STATISTICS 2

Campus Footscray Park, Hong Kong
Prerequisite(s) RCM1611 Applied Statistics 1.
Required Reading Albright, Winston, Zappe, Data Analysis for Managers, 2nd edn, Thompson.
Class Contact Four hours per week for one semester, comprising two one-hour lectures and two one-hour tutorial.
Assessment Final examination, 60%; tests, 40%.

RCM1711 MATHEMATICAL FOUNDATIONS 1

Campus Footscray Park
Prerequisite(s) VCE Mathematical Methods or equivalent
Content Set theory: basic principles, operations and applications. Propositional logic and Boolean algebra. Introduction to calculus: limits, derivatives; applications to analysis of functions and solution of non-linear equations. Integration and its relationship to differentiation. Linear algebra: vectors, matrices; applications to geometry and linear equations. Use of computer algebra systems for exploration and enhancement.
Class Contact Two hours per week of lectures; one hour per week of tutorial and one hour per week of laboratory work.
Assessment Final examination, 75%; mid semester test, 15%; laboratory work, 10%.

RCM1712 MATHEMATICAL FOUNDATIONS 2

Campus Footscray Park
Prerequisite(s) RCM1711 Mathematical Foundations 1.
Content Discrete mathematics: recursion, induction and recurrence relations; analysis of algorithms; permutations and combinations with applications to the binomial and multinomial theorems. Further calculus: optimization problems; elementary differential equations with applications; numerical integration: trapezoidal rule and Simpson’s rule. Further linear algebra: determinants and matrix inversion; applications to linear and nonlinear regression and interpolation. Further use of computer algebra systems for exploration and enhancement.
Class Contact Two hours per week of lectures; one hour per week of tutorial and one hour per week of laboratory work.
Assessment Final examination, 75%; mid semester test, 15%; laboratory work, 10%.

RCM1713 DISCRETE MATHEMATICS

Campus Footscray Park, Hong Kong
Prerequisite(s) RCM1711 Mathematical Foundations 1.
Content Algorithms– worst case and asymptotic analysis, O, Ω and θ notation. Algorithm design – greedy algorithms, divide and conquer, dynamic programming, backtracking, branch and bound heuristics. Comparisons and applications. Graph theory – definitions, terminology, adjacency, incidence, paths, cycles, multigraphs, digraphs, weighted graphs, Eulerian graphs and digraphs, Hamiltonian graphs and digraphs, path algorithms, trees, graph colouring, matching.
Required Reading Nil.
Class Contact Four hours per week for one semester, comprising two hours of lectures, and two hour of laboratory/one hour tutorial.
Assessment Final examination, 80%; tests, 20%.

RCM2111 DATA COMMUNICATIONS AND NETWORKS 1

Campus Footscray Park, Hong Kong
Prerequisite(s) RCM1115 Computer Systems and Architecture.
Class Contact Four hours per week for one semester, comprising three one-hour lectures and two one-hour laboratory/tutorial.
Assessment Final examination, 80%; assignment and tests, 20%.

RCM2112 OPERATING SYSTEMS

Campus Footscray Park, Hong Kong, Malaysia, Singapore
Prerequisite(s) RCM1115.
Recommended Reading Operating Systems, Third Edition, Gary Nutt, 2004
Class Contact Four hours per week for one semester, comprising two one hour lectures and two hours laboratory/tutorial.
Assessment 70% final examination 30% test and assignment

RCM2113 MULTIMEDIA SYSTEMS DESIGN

Campus Footscray Park
Prerequisite(s) RCM1114 Introduction to Computing and the Internet.
Required Reading To be advised by lecturer.

Class Contact Four hours per week for one semester, comprising two one-hour lectures and one two-hour laboratory/tutorial.

Assessment Final examination, 70%; assignment and tests, 30%.

RCM2213 COMPUTER GRAPHICS

Campus Footscray Park

Prerequisite(s) RCM1312 Programming 2 or equivalent.

Content This subject introduces the principles of computer graphics and the art in the representation of 2D and 3D pictures, and gives experience in using graphics package OpenGL. The topics coverage also includes popular graphics algorithms and techniques for generating 2D and 3D animations. In addition, some advanced topics, such as curves, surface and shading are discussed. Students will have considerable practice in 2D and 3D graphics programming with package OpenGL.


Class Contact Two one-hour lectures and two one-hour laboratory for one semester.

Assessment Laboratory, 10%; Assignment, 30%; Final examination, 60%.

RCM2218 DATABASE SYSTEMS 2

Campus Footscray Park, Sydney, Hong Kong, Malaysia

Prerequisite(s) RCM1211 Database Systems 1, or equivalent.

Content Data analysis and modelling using the Enhanced Entity-Relationship model and normalization. Constraints beyond the EER model, and advanced data modeling issues. Database transactions: concept, ACID properties, specification. Transaction processing: commit and rollback, concurrency control, locking, scheduling, and recovery. Database application development using embedded SQL.


Class Contact Two-hour lecture and two-hour laboratory per week.

Assessment Final examination, 80%; tests, 20%.

RCM2311 OBJECT ORIENTED PROGRAMMING 1

Campus Footscray Park, Sydney, Hong Kong, Malaysia

Prerequisite(s) RCM1312 Programming 2

Content This subject covers the critical concepts and features that support object-oriented programming. Classes and data abstraction, graphical user interfaces, threads, streams, exceptions and system design and Multimedia applications. Mastery of these concepts provide the foundation to practice object-oriented programming in a productive way and the subsequent mastery of the finer points of object-oriented programming.

Required Reading To be advised by lecturer.

Recommended Reading Deitel, H.M. and Deitel, P.J. 2005, JAVA How to Program, 6th edn, Prentice Hall.

Class Contact Four hours per week for one semester, comprising two hours of lectures and two hour of laboratory/tutorial.

Assessment Final examination, 70%; assignment, and practical work 30%.

RCM2312 SOFTWARE ENGINEERING

Campus Footscray Park, Sydney, Hong Kong

Prerequisite(s) RCM1312 Programming 1; RCM1312 Programming 2.

Content This subject represents an introduction to traditional software development and object oriented analysis and design. It is designed to prepare students for final year computer projects. Topics to be covered include: software life cycle, requirements analysis and specification, structured and object oriented design, documentation of software systems. Testing. Reusability and Portability. Planning and Estimating. Implementation.


Recommended Reading To be advised by lecturer.

Class Contact Four hours per week for one semester, comprising three one-hour lectures and one one-hour laboratory/tutorial.

Assessment Final examination, 80%; assignments: 20%.

RCM2313 SOFTWARE DEVELOPMENT

Campus Footscray Park, Sydney, Hong Kong

Prerequisite(s) RCM1312 Software Engineering 1, RCM1312 Programming 2

Content The aim of this subject is to develop an appreciation of the work whereby software is developed in a production environment and the use software is developed in a production environment. Students will thus develop an appreciation of the work whereby software is developed in a production environment and the use software is developed in a production environment. Students will thus develop an appreciation of the work whereby software is developed in a production environment and the use software is developed in a production environment. Students will thus develop an appreciation of the work whereby software is developed in a production environment and the use software is developed in a production environment. Students will thus develop an appreciation of the work whereby software is developed in a production environment and the use software is developed in a production environment. 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Students will thus develop an appreciation of the work whereby software is developed in a production environment and the use software is developed in a production environment. Students will thus develop an appreci民族的保护和传承以实现可持续的发展。

Class Contact
Four hours per week for one semester comprising of two one hour lectures and one hour laboratory and one hour tutorial.

Assessment
Final examination, 80%; laboratory work 20%.

RCM2321 MATHEMATICS OF CONTINUOUS PROCESSES B

Campus Footscray Park
Prerequisite(s) RCM2712 Mathematics of Continuous Processes A.

Content

Required Reading

Class Contact
2 x one hour lecture and 2 x one hour tutorial for one semester.

Assessment
20% mid-semester test; 80% end of semester examination.

RCM2511 IMAGE PROCESSING 1

Campus Footscray Park, Sydney, Malaysia
Prerequisite(s) RCM1114 Introduction to Computing and the Internet, and one of RCM1711 or RCM1712.

Co-requisites
Nil

Content

Required Reading
None.

Recommended Reading

Class Contact
Two hours of lectures, one hour of practical work, one hour tutorial per week.

Assessment
Final examination 75%, laboratory assessment 25%.

RCM2611 LINEAR STATISTICAL MODELS

Campus Footscray Park
Prerequisite(s) RCM1614 Applied Statistics 2.

Content

Required Reading

Recommended Reading

Class Contact
Four hours per week for one semester, comprising one two-hour lecture and one one-hour tutorial and one one-hour laboratory.

Assessment
Final examination, 70%; assignment: 30%.

RCM2612 FORECASTING

Campus Footscray Park, Sydney, Hong Kong, Malaysia
Prerequisite(s) RCM1614

Content

Required Reading
Nil.

Recommended Reading

Class Contact
Four hours per week for one semester, comprising two one-hour lectures and two one-hour laboratory.

Assessment
Project, 40%; Examination, 60%.
RCM2614 STATISTICAL DATAMINING
Campus Footscray Park, Hong Kong, Malaysia, Singapore
Prerequisite(s) RCM1614.
Content Statistical datamining methods, cluster analysis, discriminant analysis, issues in sampling and estimation, using the bootstrap, non-parametric methods.
Required Reading Giudici, P. 2004 Applied Data Mining, Wiley.
Class Contact Four hours per week for one semester, comprising two one-hour lectures, one one-hour tutorial and one one-hour practical.
Assessment Final examination, 60%; assignments and tests, 40%.

RCM1712 MODELLING FOR DECISION MAKING
Campus Footscray Park, Hong Kong, Malaysia, Singapore
Prerequisite(s) RCM1712
Content Overview of the modelling process: problem identification, factors and assumptions, formulation and solution, interpretation comparison of results with original problem. Setting up models, interpretation of mathematical models. Interpolation, extrapolation, spectral decomposition and fitting models to data. Applications of continuous models via differential equations and data fitting. Discrete versus continuous modelling and discrete/continuous combinations with examples of general interest in a variety of fields.
Class Contact Four hours per week for one semester.
Assessment Final examination, 80%; assignments, 20%.

RCM2810 ADVANCED INTERNET PROGRAMMING
Campus Footscray Park, Sydney (Alpha Beta College), Hong Kong, Malaysia
Prerequisite(s) RCM1114, RCM1311, RCM1711
Content XHTML and JavaScript: interaction between a web-page and a user; input validation and submission of a form; response to submission of a form, connecting an OOM to a GUI. The bridge between XHTML/JavaScript and an embedded object: applets and scriptlets as examples of embedded objects; how to use XHTML to initialize parameters of an an applet, and to use JavaScript to control the parameters at runtime; how to adapt an applet to read initial values of parameters from an XHTML page, and to read parameter values at run-time from an XHTML/JavaScript page; DHTML: CSS style-sheets, positioning elements, layering a page, interaction between the user and the web-page; Server-side topics: communication through sockets, creating a simple browser and a simple HTTP server, PHP, MySQL: Emerging Internet technologies such as SOAP for accessing objects, and Wireless ML for WAP-enabled devices.
Class Contact Four hours per week for one semester, comprising one two-hour lecture and one two-hour laboratory/tutorial.
Assessment Laboratory work, 12%; mid-semester practical examination (3 hours duration), 30%; end-of-semester practical examination (3 hours duration), 58%. In order to pass, students must obtain at least 50% of the total marks given in this subject.

RCM2911 LINEAR OPTIMISATION MODELLING
Campus Footscray Park
Prerequisite(s) Nil.
Content Introduction to linear programming; Mathematical models; Graphical solution; Maximisation and minimisation problems; Spreadsheet models. Sensitivity analysis for LP; Applications of LP: Transportation problem. Assignment & Trans-shipment Simplex method, Hungarian method. Pure and mixed integer linear programming; Knapsack problems.
Class Contact Four hours per week; two hours and two hours tutorial and/or laboratory.
Assessment Participation in tutorials, 5%; test 15%; assignment, 10%; final examination, 70% three hours; to obtain a grade of pass or better, a student must obtain 40% or more in the final examination.

RCM2912 PROJECT SCHEDULING
Campus Footscray Park, Sydney, Hong Kong, Malaysia
Prerequisite(s) Nil.
Required Reading Lecture notes provided by lecturer.
Class Contact Four hours per week for one semester comprising two hours lectures and two hour laboratory/tutorial.
Assessment Two Assignments 30%, Final Examination 70%.

RCM2915 STOCHASTIC AND COMBINATORIAL OPTIMISATION
Campus Footscray Park, Hong Kong, Malaysia, Singapore
Prerequisite(s) RCM1613 or equivalent.
Content Decision Analysis: Decision Making without and with Probabilities; Decision Tress, EVPI and EVSI. Multicriteria Decision Making: Scoring Model, Analytical Hierarchy Process; Spreadsheet Analysis. Selected Combinatorial Optimisation Models: Network Models – spanning tree, shortest path, and maximum flow problems; Set Covering Problem; Cutting Stock Problem; Bin Packing Problem. Queuing Theory: Basic concepts of a queuing model, arrival and
service time distributions; operating characteristics of a queuing system; multiple server models; no waiting time and finite calling population; Economic Analysis; Spreadsheet Analysis.

**Required Reading**

**Recommended Reading**
Anderson, Sweeney and Williams, 1999, *Contemporary Management Science with Spreadsheets*, South Western College Publishing. Subject notes will be supplied to supplement the textbook as necessary.

**Class Contact**
Four hours per week for one semester; two hours lecture and two hours tutorial/laboratory.

**Assessment**
Participation in Tutorials, 5%; Class Test, 15%; Assignment, 10%; Final examination, 70%. To obtain a grade of pass or better a student must obtain 40% or more in the final examination.

**RCM2930 3D WEB TECHNOLOGIES**

**Campus**
Footscray Park, Sydney, Hong Kong, Malaysia.

**Prerequisite**
(S) RCM1312

**Content**
VRML/Java3D programming. Structure of a VR Object; Basic structures and adjustment of predefined simple and complex scenes. Adding processing capabilities to VR models by scripting languages. Adding audio-visual effects (light, sound, image texture mapping, audio and video); higher level tools for creating 3D virtual worlds and other approaches to 3D web content; scene graphs. Creating and navigating the virtual world. Creating interactive 3D graphic models and animations by Java 3D.

**Required Reading**
Lectures notes provided by the lecturer.

**Recommended Reading**

**Class Contact**
Four hours per week comprising of lectures and two hour of tutorial and computer laboratory.

**Assessment**
Normally Two Assignments, 30%; final examination, 70%.

**RCM3002 PROJECT 2**

**Campus**
Footscray Park, Sydney, Hong Kong, Malaysia.

**Prerequisite(s)**
ACE1145 or Year 12 English or competence in English. Must have completed year 2.

**Content**
Appropriate to the project involved, the student will be required to produce a number of documents such as test plan, design project report, user manual, e-poster and CDROM. The student will be continually supervised under the guidance of the subject co-ordinator and their project supervisors via weekly meetings at various stages of the project. The student's ability as a competent communicator in industry settings will be further developed through workshop activities. The writing of a group project report, writing professional applications, preparing for and role playing interviews and developing oral presentation skills will be included in the workshops.

**Required Reading**

**Recommended Reading**
Handbook of Communication Skills for First Year Students in the Faculty of Science, Engineering and Class Contact
1x two hr project meetings with subject co-ordinator and project supervisor; 1x two hr workshop.

**Assessment**
Demo Presentations, 10%; User Acceptance Test, 20%; Attendance of Meetings and Online Logbook, 5%; Documentation, User Manual, 20%; Final Presentation & e-Poster, 20%; Written Employment Application, 15%; Interviews, 10%. All items of assessment must be completed in order for a final result to be obtained in this subject.

**RCM3111 DATA COMMUNICATIONS & NETWORKS 2**

**Campus**
Footscray Park.

**Prerequisite(s)**
(S) RCM2111 Data Communications & Networks 1

**Content**

**Required Reading**
To be advised by lecturer

**Recommended Reading**

**Class Contact**
Four hours contact per week for one semester comprising two one hour lectures and two one-hour laboratory/tutorial.

**Assessment**
Final examination, 70%, assignments, 30%.

**RCM3112 USER INTERFACE DESIGN**

**Campus**
Footscray Park, Sydney, Hong Kong, Malaysia.

**Prerequisite(s)**
(S) RCM1114, RCM1115

**Content**

**Required Reading**

**Recommended Reading**
Class Contact Three hours per week for one semester, comprising two one-hour lectures and two one-hour laboratory/tutorial.

Assessment Final examination, 60%; assignment and tests, 40%.

**RCM311 ARCHITECTURES FOR ENTERPRISE WIDE COMPUTING**

Campus Footscray Park, Sydney, Hong Kong, Malaysia

Prerequisite(s) RCM2218, RCM2315

Content The client/server model. Comparison to mainframe environment; legacy system connections; mission critical services. Client and server roles. Network services; middleware and controlware; two, three and n-tier architectures; integration layers; interfacing protocols and procedures. Client/server analysis modeling. Requirements determination; data models and object modeling; business process concepts and models. Data Base and user Interface Design. Database systems and services; integrated information architectures; linking multiple databases; GUI standards and design recommendations. Client/server development environments. Object building blocks; prototyping services; rapid application development; testing and validation. Extensions of the client/server model. Remote method invocation; CORBA; applications involving remote processing.


Class Contact Four hours per week for one semester, comprising of two hours of lectures and two hours of laboratory/tutorial.

Assessment Final examination, 70%; tests/assignments, 30%.

**RCM321 DATABASE SYSTEMS 3**

Campus Footscray Park, Sydney, Hong Kong, Malaysia

Prerequisite(s) RCM2218 Database Systems 2.

Content Data warehouse, datamart, knowledge discovery in databases, data mining algorithms, online analytic processing (OLAP), online transaction processing (OLTP), hypercubes, star schemas, Multidimensional analysis, ROLAP and MOLAP.

Required Reading Nil.


Class Contact Four hours per week for one semester, comprising two one-hour lectures and two one-hour laboratory/tutorial.

Assessment Final examination, 70%; assignment and tests, 30%.

**RCM331 OBJECT ORIENTED PROGRAMMING 2**

Campus Footscray Park, Sydney, Hong Kong, Malaysia

Prerequisite(s) RCM1312 Programming 2; RCM2311 Object Oriented Programming 1.

Content The subject explores advanced Java object-oriented programming techniques and their distributed characteristics in the Internet environment. Topics covered include JavaBeans, Security, JDBC, Servlets, Java Server Pages (JSP), Remote Method Invocation (RMI).

Required Reading To be advised by lecturer.

Recommended Reading Deitel, H. M., and Deitel, P.J., Java How to Program, 6th Ed., Prentice Hall, 2005

Class Contact Four hours per week for one semester, comprising three one hour lectures and one one hour lab/tute.

Assessment Final examination, 80% assignments and tests, 20%.

**RCM332 INTELLIGENT SYSTEMS**

Campus Footscray Park, Sydney, Hong Kong, Malaysia

Prerequisite(s) RCM1312 Programming 2 and RCM1115 Computer Systems and Architecture

Content Introduction to intelligent systems and artificial intelligence, including a study of knowledge representation and problem solving strategies of rule-based expert systems, fuzzy logic, artificial neural networks and genetic algorithms. Practical work includes JESS expert system shell.


Class Contact Four hours per week for one semester, comprising two one-hour lectures and two one-hour laboratory/tutorial.

Assessment Final examination, 80%; assignment(s), 20%.

**RCM333 SOFTWARE ENGINEERING 2**

Campus Footscray Park, Malaysia, Hong Kong

Prerequisite(s) RCM2312, RCM2311

Content Topics include inspection and formal review, good programming practice, software testing, software estimation, project planning, software process improvement and capability maturity models.


Class Contact Four hours per week for one semester, comprising two one-hour lectures and two one-hour laboratory/tutorial.

Assessment Final examination, 80%; assignment 20%. In order to pass, students must obtain at 50% of the total marks given in this subject, including at least 40% of the examination mark and at least 40% of the internal marks.

**RCM334 OBJECT ORIENTED ANALYSIS AND DESIGN**

Campus Footscray Park, Sydney, Hong Kong, Malaysia

Prerequisite(s) RCM3211 Object Oriented Programming 1.

Content Review of object oriented design approaches; the Unified Modeling Language (UML); introduction to Rational Rose; the Unified Method; and Agile Modeling approach. design of domain layer; design of storage layer for the use of persistent objects; user interface design considerations; applying the patterns approach to analysis and design.


Class Contact Four hours per week for one semester comprising of two one-hour lectures and two one-hour laboratory/tutorial.

Assessment Final examination, 70%; Assignment and test, 30%.

**RCM336 ADVANCED MATHEMATICAL TECHNIQUES**

Campus Footscray Park

Prerequisite(s) RCM2321

Content A selection of one or more of the following topics: Asymptotic and perturbation techniques: Taylor’s Theorem and l’Hopital’s Rule, Order Symbols, Asymptotic Expansions, Asymptotic series versus convergent series, introduction to perturbation theory, Taylor’s method, perturbation and Asymptotic of Algebraic and Transcendental Equations, application to solution of differential equations, regular versus singular perturbation, application to expansion of integrals, Gamma function, transforms, integration by parts, Laplace method, method of stationary phase, method of steepest descent, developing Maple code to solve applicable problems.

Advanced techniques for differential equations: methods for non-constant coefficient ordinary differential equations, analytic techniques to solve linear partial differential equations, heat equations, wave equation, Black-Schole option pricing formula,
RCM3511 IMAGE PROCESSING 2

**Campus** Footscray Park  
**Prerequisite(s)** RCM2511 Image Processing, RCM1312 Programming 2  
**Content** Image file types. Topology and geometry; applications to boundary detection, skeletonization and image resizing. Quantization and dithering. Advanced frequency domain filtering, including inverse filtering and Wiener filtering; the Fast Fourier Transform. Shape and size analysis: greyscale morphology and shape descriptors. Lossy compression and the JPEG standard. Wavelets and their applications. Implementation of image processing algorithms.  
**Class Contact** Four hours per week for one semester, comprising two one-hour lectures and two one-hour laboratory/tutorial.  
**Assessment** Final examination, 70%; assignment and tests, 30%.  

RCM3611 REGRESSION ANALYSIS

**Campus** Footscray Park  
**Prerequisite(s)** RCM2611  
**Content** Review of linear model theory. The signs of, and solution to, common problems with the assumptions necessary for inference in the least squares regression method. Using Generalised Linear Models to overcome a number of these problems. Logistic regression and log linear models. Non-linear regression methods.  
**Required Reading** Myers, R.H., *Classical and Modern Regression with Applications* 2nd Ed. 1990, Duxbury.  
**Class Contact** Four hours per week for one semester, mix of lectures, tutorials and computer laboratory.  
**Assessment** Final Examination 60% Assignments 40%.
practical applications will be considered, set in a high level programming environment.

**Required Reading** Nil

**Recommended Reading** Atkinson, K.E., 1989, An Introduction to Numerical Analysis, John Wiley & Sons.

**Class Contact** Four hours per week for one semester, comprising two one-hour lectures and two one-hour laboratory/tutorial.

**Assessment** Final examination, 80%; assignment and tests, 20%.

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**RCM3712 CODING, CRYPTOGRAPHY AND COMPUTER SECURITY**

**Campus** Footscray Park

**Prerequisite(s)** RCM1711 Mathematical Foundations 1 and RCM1712 Mathematical Foundations 2.

**Content** Information Theory, error correcting and control codes, cryptosystems, one way functions, public key systems, Data Encryption Standard.


**Subject Hours** Three hours per week for one semester, comprising two one-hour lectures and one one-hour laboratory/tutorial.

**Assessment** Final examination, 80%; assignment and tests, 20%.

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**RCM3720 CRYPTOGRAPHY, COMPUTER AND NETWORK SECURITY**

**Campus** Footscray Park, Sydney, Malaysia

**Prerequisite(s)** RCM1711 Mathematical Foundations 1 and RCM1712 Mathematical Foundations 2 or equivalent.


**Required Reading** To be advised by the lecturer.


**Class Contact** Four hours per week: two hours lecture, and two hours laboratory.

**Assessment** Final examination, 80%; assignment and tests, 20%.

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**RCM3820 INTERNET COMPUTING USING XML**

**Campus** Footscray Park, Sydney (Alpha Beta College), Hong Kong, Malaysia.

**Prerequisite(s)** RCM1114

**Content** Introduction to XML: definition, benefits, etc.; XML tools; XML namespaces; Document Type Definitions; XML Schema; Extensible Stylesheet Language; XML Forms; XSL Formatting Objects; Resource Description Framework and Dublin Core.

**Required Reading** To be advised.


**Class Contact** Four hours/week: two hours of lectures and two hours of computer laboratory.

**Assessment** Two assignments, 30%; final examination, 70% (3 hours duration). In order to pass, students must obtain at least 50% of the total marks given in this subject.

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**RCM3911 SIMULATION**

**Campus** Footscray Park, Hong Kong

**Prerequisite(s)** RCM1311, RCM1711


**Recommended Reading** Hull, J.C., 2003, Options, Futures, and Other Derivatives, 5th edn, Prentice Hall.

**Class Contact** Two hrs of lectures and two hr tutorial/laboratory per week for one semester.

**Assessment** Assignment, 20%; final examination, 80%.

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**RCM3940 COMPUTATIONAL RISK MODELLING**

**Campus** Footscray Park


**Recommended Reading** Hull, J.C., 2003, Options, Futures, and Other Derivatives, 5th edn, Prentice Hall.

**Class Contact** Two hrs of lectures and two hr tutorial/laboratory per week for one semester.

**Assessment** Assignment, 20%; final examination, 80%.

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**RCM3950 INTERNET DATA MANAGEMENT**

**Campus** Footscray Park, Sydney (Alpha Beta College), Hong Kong, Malaysia.

**Prerequisite(s)** RCM2313

**Content** Introduction to Class; Introduction to ASP.NET; Introduction to Visual Studio NET; Using Server Controls; Using ASP.NET Rich Controls; Using Visual Basic.NET Within an ASP.NET Page; Managing Data Sources; Building Data-Driven ASP.NET Applications; Building Data-Driven Web Applications; Configuring an ASP.NET Application; Troubleshooting and Deploying an ASP.NET Application.

**Required Reading** Introduction to ASP.NET, Kathleen Kalata, © 2002 Course Technology, 0-619-06321-1.
**Recommended Reading**

- OpenGL Game Programming

**Class Contact**

Four hours per week for one semester, comprising one two-hour lecture and two one-hour laboratory/tutorial.

**Assessment**

- Laboratory, 15%; Assignments, 35%; mid-Semester Test (1 hour duration), 25%; final test (1 hour duration). In order to pass, students must obtain at least 25% of Labs and Assignment, and 25% of Tests in this subject.

**RCM3960 INTERNET SECURITY**

**Campus**

Footscray Park, Sydney [Alpha Beta College], Hong Kong, Malaysia.

**Prerequisite(s)**

RCM1711 and RCM1712 or equivalent.

**Content**


**Required Reading**

Supplied notes.

**Recommended Reading**


**Class Contact**

Four hours/week: two lectures and two computer laboratory, one tutorial.

**Assessment**

- Two mid semester tests, 15% each (1 hour duration); one final exam, 70% (3 hours duration). In order to pass, students must obtain at least 50% of the total marks given in this subject.

**RCM3970 COMPUTER GRAPHICS FOR GAME PROGRAMMING**

**Campus**

Footscray Park, Sydney [Alpha Beta College], Hong Kong, Malaysia, China.

**Prerequisite(s)**

RCM1713 or equivalent, RCM2213

**Content**

The graphics pipeline and graphics performance: texture mapping; description of surface and curve; advanced topics on hidden surface removal; using and manipulating scene graphs; design of interactive applications; collision detection, geometric level of detail; special effects such as shadows, billboardng and motion blur; and hardware procedural shading.

**Required Reading**

Lecture notes provided by lecturer.

**Recommended Reading**


**Class Contact**

Four hours per week for one semester, comprising one two-hour lecture and two one-hour tutorial and computer laboratory.

**Assessment**

- Normally two assignments, 30%; final examination, 70%.

**RCM1100 MEDICAL, FORENSIC AND ANALYTICAL CHEMISTRY 1**

**Campus**

Werribee

**Prerequisite(s)**

Nil

**Content**

Overview and introduction to the principles and methodology of medical, forensic and analytical chemistry. Medical chemistry: introduction to medical therapeutics and diagnostics, organic and inorganic medical chemistry, nuclear medicine and drug design. Forensic chemistry: introduction to physical evidence, fire and explosion investigation, firearm investigation, drug analysis and the analysis of chemical evidence such as fibres. An introduction to the relevant areas of analytical chemistry include an overview of measurements in the analytical laboratory, solutions and concentrations, and an introduction to classical analytical chemistry including volumetric analysis and methods based on analytical separations.

**Required Reading**


**Recommended Reading**

Students will be directed towards relevant sections of the medical, forensic and analytical chemistry literature.

**Class Contact**

Three hours of lectures and one hour of tutorials/demonstrations per week.

**Assessment**

Written examination, 100%.

**RCM1110 CHEMISTRY FOR BIOLOGICAL SCIENCES A**

**Campus**

St Albans

**Prerequisite(s)**

Nil

**Content**

Chemistry relevant to biological sciences including the topics which follow: Matter and energy, Measurement, Atomic theory and the periodic table, Chemical and physical bonding, Chemical formulae, reactions and equations, Molecular structure and the state of matter, Solutions and aqueous chemistry.

**Required Reading**


**Recommended Reading**

To be advised by lecturer.

**Class Contact**

Six hours per week for one semester comprising three hours of lectures, one hour tutorial and two hour practical classes.

**Assessment**

- Assignment, 10%; Practical work, 20%; Examination, 70%.

**RCM1120 CHEMISTRY FOR BIOLOGICAL SCIENCES B**

**Campus**

St Albans

**Prerequisite(s)**

RCM1110 Chemistry for Biological Sciences A or equivalent

**Content**

Chemistry topics relevant to biological sciences and which incorporate specific reference to biological systems. Topics will include the following: Basic physical chemistry including chemical equilibrium and kinetics, acids and bases, Thermochemistry, Oxidation and reduction, Inorganic and nuclear chemistry with reference to selected elements of biological chemistry, Organic chemistry and biological chemistry.
<table>
<thead>
<tr>
<th>RCS1601 CHEMISTRY 1A</th>
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<tbody>
<tr>
<td><strong>Campus</strong> Werribee</td>
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<tr>
<td><strong>Prerequisite(s)</strong> Nil</td>
</tr>
<tr>
<td><strong>Content</strong> Chemistry methods and measurements; atomic theory and the periodic table; structures and properties of ionic and covalent compounds; chemical equation, reactions and solutions; co-ordination chemistry, acids and bases.</td>
</tr>
<tr>
<td><strong>Required Reading</strong> Chang, R., <em>Essential Chemistry (A Core Text for General Chemistry)</em>, 2nd edn, McGraw Hill. Laboratory manuals as directed.</td>
</tr>
<tr>
<td><strong>Recommended Reading</strong> Denniston, Topping, Caret, General, Organic and Biochemistry, 3rd edn, McGraw-Hill.</td>
</tr>
<tr>
<td><strong>Class Contact</strong> Seven hours per week comprising three hours of lecture, three hours of laboratory and one hour of tutorial.</td>
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<tr>
<td><strong>Assessment</strong> Laboratory work, 30%; tutorial assessments, 15%; examination, 55%.</td>
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<tr>
<th>RCS1602 CHEMISTRY 1B</th>
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<tbody>
<tr>
<td><strong>Campus</strong> Werribee</td>
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<tr>
<td><strong>Prerequisite(s)</strong> Nil</td>
</tr>
<tr>
<td><strong>Content</strong> States of matter; physical and chemical changes (energy, rate and equilibrium); oxidation-reduction reaction (electrochemistry); the nucleus, radioactivity and nuclear medicine; Organic chemistry: saturated and unsaturated hydrocarbons; alcohol phenols, thiols and ethers; aldehydes and ketones; carboxylic acids and their derivatives; amines and amides; biological chemistry.</td>
</tr>
<tr>
<td><strong>Required Reading</strong> Chang, R., <em>Essential Chemistry (A Core Text for General Chemistry)</em>, 2nd edn, McGraw Hill. Laboratory manuals as directed.</td>
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<tr>
<td><strong>Class Contact</strong> Seven hours per week comprising three hours of lecture, three hours of laboratory and one hour of tutorial.</td>
</tr>
<tr>
<td><strong>Assessment</strong> Practical work, 30%; tutorial assessments, 15%; examination and assignment, 55%.</td>
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<table>
<thead>
<tr>
<th>RCS2520 PROCESS ENGINEERING 1</th>
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</thead>
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<tr>
<td><strong>Campus</strong> Werribee</td>
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<tr>
<td><strong>Prerequisite(s)</strong> Students would normally be expected to have successfully completed SPH1210 Physics 1F and RMA1110 Mathematics for the Biological and Chemical Sciences 1.</td>
</tr>
<tr>
<td><strong>Content</strong> The subject aims to introduce students to basic engineering principles and to unit operations involved in food processing. Topics covered include: dimensions and units; material and energy balances; process flow diagrams; fluid flow theory and applications; heat transfer theory, applications and equipment; mechanical separation processes; instrumentation and control.</td>
</tr>
<tr>
<td><strong>Required Reading</strong> To be advised by lecturer.</td>
</tr>
<tr>
<td><strong>Class Contact</strong> Four hours per week comprising lectures and tutorials for one semester.</td>
</tr>
<tr>
<td><strong>Assessment</strong> Assignments, 30%; final examination, 70%.</td>
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<table>
<thead>
<tr>
<th>RCS2520 MEDICAL CHEMISTRY 2</th>
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<tbody>
<tr>
<td><strong>Campus</strong> Werribee</td>
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<tr>
<td><strong>Prerequisite(s)</strong> RCS1601 Chemistry 1A and RCS1603 Medical, Forensic and Analytical Chemistry 1A.</td>
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<tr>
<td><strong>Content</strong> The aim of this subject is to introduce students to aspects of Medical Chemistry. The topics covered include Nuclear Chemistry and the application of Radioisotopes in Medical Chemistry. Bioinorganic Chemistry and the role of inorganic compounds in medicine. The synthesis and analysis of proteins, the structure and physiology of carbohydrates and lipids and a brief introduction to drug/molecule interactions.</td>
</tr>
<tr>
<td><strong>Recommended Reading</strong> To be advised by lecturer.</td>
</tr>
<tr>
<td><strong>Class Contact</strong> Two hours of lectures and three hours of practical classes per week for one semester.</td>
</tr>
</tbody>
</table>
Assessment A combination of assignments, practical work, short tests and a final examination.

RCS2503 FORENSIC CHEMISTRY 2
Campus Werribee
Prerequisite(s) RCS1603 Medical, Forensic & Analytical Chemistry 1A or equivalent.
Content This subject draws upon real life investigations to introduce students to forensic chemical techniques. Modern methods of analysis and materials identification will be studied as applied to crimes against property such as arson, burglary, vehicle accidents and theft; crimes against the person such as assault, sexual offences and murder; and crimes involving the possession, illicit manufacture and distribution of drugs of abuse.
Recommended Reading Students will be directed to relevant sections of Saferstein, R., (ed.), Forensic Science Handbook Vol 1, 2 and 3, Prentice Hall.
Class Contact Two hours of lectures and three hours of practical classes per week for one semester.
Assessment A combination of assignments, 15%; practical work, 30%; and examination, 55%.

RCS2521 APPLIED CHEMISTRY 2 – ORGANIC
Campus Werribee
Prerequisite(s) RCS1006 Chemistry 1
Content The aims of this subject are to introduce students to fundamental aspects of synthetic organic chemistry, organic reaction mechanisms along with applications of spectroscopy to organic chemistry. Aromaticity. Electrophilic and nucleophilic aromatic substitution – use in synthesis. Physical, organic chemistry, spectroscopy, including UV, IR, NMR and mass spectroscopy. Chemistry of carbanions – applications in synthesis. The chemistry of free radicals. The chemistry of carbocations. Organic synthesis, particular emphasis will be placed on the relationship of this chemistry to industrial chemistry. Practical exercises providing substantial ‘hands-on’ experience with chromatographic and spectroscopic instrumentation will complement the lecture material.
Class Contact Five hours per week for two semesters, comprising two hours of lectures and three hours of practical work.
Assessment End-of-semester examination, 60%; practical work 20% and two assignments 20%.

RCS2601 ANALYTICAL CHEMISTRY 2A
Campus Werribee
Prerequisite(s) RCS1601 Chemistry 1A, RCS1602 Chemistry 1B or equivalent.
Content Statistics of errors and treatment of analytical data. Sampling of complex materials. Analytical methods based on emission and absorption of radiation including UV visible and fluorescence spectroscopy. Introduction to NMR and mass spectrometry. Practical exercises will provide substantial ‘hands on’ experience with modern analytical instruments and will illustrate important analytical and physicochemical techniques.
Recommended Reading To be advised by lecturer and will be based on the most current texts and journal articles that are relevant to the subject.
Class Contact Two hours per week of lectures and three hours of laboratory classes per week for one semester.
Assessment Students will be assessed on the basis of an examination, 70%; and practical work, 30%. Students must pass the practical component in order to pass this subject.

RCS2602 ANALYTICAL CHEMISTRY 2B
Campus Werribee
Prerequisite(s) RCS1601 Chemistry 1A, RCS1602 Chemistry 1B or equivalent.
Content Principles of instrumentation. Chromatographic methods including gas chromatography and liquid chromatography. Introduction to electrochemical methods. Analytical separation techniques and processes. Practical exercises will provide substantial ‘hands on’ experience with modern analytical instruments and will illustrate important analytical and physicochemical techniques.
Recommended Reading To be advised by lecturer and will be based on the most current texts and journal articles that are relevant to the subject.
Class Contact Two hours per week of lectures and three hours of laboratory classes per week for one semester.
Assessment Students will be assessed on the basis of an examination, 70%; and practical work, 30%. Students must pass the practical component in order to pass this subject.

RCS3411 ENVIRONMENTAL LEGISLATION
Campus St Albans
Prerequisite(s) Nil.
Required Reading To be advised by lecturer.
Class Contact Four hours of lectures per week for one semester.
Assessment Fieldwork and assignments, 40%; examinations, 60%.

RCS3601 ANALYTICAL CHEMISTRY 3A
Campus Werribee
Prerequisite(s) RCS2601 Analytical Chemistry 2A and RCS2602 Analytical Chemistry 2B or equivalent.
Content Chemical literature and use of library resources; modern trends in chemical analysis; review of analytical methodologies; an operational model for analytical chemistry; evaluation and criticism of analytical results; development of new analytical methods and
trends in analytical research; project planning; selection and purchase of analytical equipment and apparatus; optimisation of analysis. Applications of advanced spectroscopy to organic analysis and structure elucidation. Analysis of carbohydrates, lipids, terpenes, steroids, heterocyclic compounds and proteins.


**Recommended Reading** Students will be referred to various texts and journals during the subject and will be expected to read widely from them.

**Class Contact** Two hours of lectures per week and four hours of laboratory classes per week for one semester.

**Assessment** Students will be assessed on the basis of an examination, 70%; and practical work, 30%. Students must pass the practical component in order to pass this subject.

**RCS3602 ANALYTICAL CHEMISTRY 3B**

**Campus** Werribee

**Prerequisite(s)** RCS2601 Analytical Chemistry 2A and RCS2602 Analytical Chemistry 2B or equivalent.

**Content** Principles, instrumentation, interferences and applications in chemical analysis of absorption and emission spectroscopy including vibrational, rotational, advanced UV visible and fluorescence spectroscopy, and flameless AAS. Electrochemical methods of analysis including ion-selective electrodes, and modern polarography and stripping volumetry. Flow injection analysis. Capillary electrophoresis. Specialized physical techniques of analysis including thermal methods, techniques for surface analysis and the analysis of polymer molecular weights. Practical work providing substantial ‘hands on’ experience will complement the lecture material.


**Recommended Reading** Students will be referred to various texts and journals during the subject and will be expected to read widely from them.

**Class Contact** Two hours of lectures per week and four hours of laboratory classes per week for one semester.

**Assessment** Students will be assessed on the basis of an examination, 70%; and practical work, 30%. Students must pass the practical component in order to pass this subject.

**RCS3603 MEDICAL CHEMISTRY 3 (DRUG DESIGN)**

**Campus** Werribee

**Prerequisite(s)** RCS2502 Medical Chemistry 2.

**Content** The synthesis of new chemicals and biochemicals which mimic natural molecules. Methods used to assess the purity of synthetically generated products. Methods used for the bioassay of chemically synthesized chemical. The design of chemicals using 3D drug design.


**Class Contact** Two hours of lectures and four hours of practical classes per week.

**Assessment** Practical work, 40%; final examination, 60%.

**RCS3604 MEDICAL CHEMISTRY 3 (MEDICAL DIAGNOSTICS)**

**Campus** Werribee

**Prerequisite(s)** RCS2502 Medical Chemistry 2.

**Content** Students enrolled in medical chemistry 3 will become skilled in the use of the theoretical basis of advanced physico-chemical and biochemical methods for body fluid analysis for the diagnosis of human diseases. These techniques will include EUSA assays and the analysis of human tissues using techniques such as PCR to determine the DNA profile of human tissues.

**Required Reading** A range of textbooks and journal articles will be recommended by the lecturer.

**Recommended Reading** Leach, A., 1996, Molecular Modelling: Principles and Application, Longman.

**Class Contact** Two hours of lectures and four hours of practical classes per week.

**Assessment** Practical work, 40%; examinations, 60%.

**RCS3605 FORENSIC METHODS 3A**

**Campus** Werribee

**Prerequisite(s)** RCS1603 Medical, Forensic & Analytical Chemistry 1A and RCS2503 Forensic Chemistry 2 or equivalent.

**Content** Forensic Methods 3A provides training in sophisticated methods of analysis as currently applied to the examination of materials that have in some way been associated with crime. Modern methods of analysis and materials identification will be studies as applied to crimes against property such as arson, burglary, vehicle accidents and theft; crimes against the person such as assault, sexual offences and murder; and crimes involving the possession, illicit manufacture and distribution of drugs of abuse.


**Recommended Reading** Students will be directed to relevant sections of Saferstein, R., [ed.], Forensic Science Handbook Vol 1, 2 and 3, Prentice Hall.

**Class Contact** Two hours of lectures and three hours of practical classes per week for one semester.

**Assessment** Practical work, 30%; and examination, 70%.

**RCS3606 FORENSIC METHODS 3B**

**Campus** Werribee

**Prerequisite(s)** RCS1603 Medical, Forensic & Analytical Chemistry 1A and RCS2503 Forensic Chemistry 2 or equivalent.

**Content** Forensic Methods 3B provides training in sophisticated methods of analysis as currently applied to the examination of materials that have in some way been associated with crime. Modern methods of analysis and materials identification will be studies as applied to crimes against property such as arson, burglary, vehicle accidents and theft; crimes against the person such as assault, sexual offences and murder; and crimes involving the possession, illicit manufacture and distribution of drugs of abuse. Various topics in this subject will be delivered by practicing forensic scientists. Legal studies is also included and introduces students to the legal system, courtroom practices and expert testimony.

**Recommended Reading** Students will be directed to relevant sections of Saferstein, R., (ed.), Forensic Science Handbook Vol 1, 2 and 3, Prentice Hall.

**Class Contact** Two hours of lectures and three hours of practical classes per week for one semester.

**Assessment** Practical work, 30%; and assignments/examination, 70%.

**REP1001 ENGINEERING PHYSICS 1A**

**Campus** Footscray Park

**Prerequisite(s)** Nil.

**Content** Physical Units and Dimensions: Physical quantities, system of units and standards, dimensions, unit conversion, significant figures.

Mechanics: Scalars and vectors, displacement, velocity and acceleration, motion in one and two dimensions, force, Newton’s laws of motion, friction, work and energy, conservation laws.

Momentum and conservation laws, impulse and collisions, rotational motion, moments of inertia, centre of mass, torque, angular momentum, statics.

Wave Motion & Optics: SHM, damped harmonic motion, forced oscillations and resonance, optical motion, mechanical and acoustic waves, superposition and standing waves, electromagnetic waves, reflection and refraction of light, mirrors and lenses, wave optics, thin films, polarization.

Fluids: Density, pressure, Pascal’s law, equation of continuity, Bernoulli’s equation.


**Class Contact** Students will be required to use the text book (required reading) extensively.

**Assessment** Class tests conducted throughout the semester (5 x 4% multiple choice internet based tests of 30 minutes duration each), 20%; Laboratory performance (5 x 4% laboratories during the semester), 20%; End of semester, open book examination 60%.

**REP1003 ENGINEERING PHYSICS 1C**

**Campus** Footscray Park

**Prerequisite(s)** REP1001 Engineering Physics 1A or equivalent. Students without formal academic qualifications in physics but with significant relevant experience may be considered for direct entry into this subject.

**Content** A selection of topics taken from the following:

- Thermodynamics: temperature, thermal expansion, heat conduction and insulation, heat capacity, specific and latent heat, ideal gases, work and heat in the thermal process, 1st law of thermodynamics, heat engines and the 2nd law of thermodynamics, thermal radiation.
- Electrical Devices: Fundamentals of electric circuits, series and parallel circuits, circuit analysis, DC and AC circuits, operation, performance characteristics and selection of motors and generators.

**Class Contact** Students will be required to use the text book (required reading) extensively.

**Assessment** Class tests conducted throughout the semester (5 x 4% multiple choice internet based tests of 30 minutes duration each), 20%; Laboratory performance (5 x 4% laboratories during the semester), 20%; End of semester, open book examination 60%.

**REP4100 DATA ACQUISITION**

**Campus** Footscray Park

**Prerequisite(s)** Completion of 1st year in an appropriate B.Eng., B.Eng.Sc., B.Sc. or B.App.Sc course.

**Content** Experimental data handling; measurements and errors. Types of errors, combining errors. Graphical analysis, statistical distributions.

- Sensors and transducers: Transducer types, e.g. resistive, voltage, current, capacitive, inductive. Transducer circuits such as bridges and operational amplifiers. Generalised measurement systems.

- Computer laboratory interfacing: Analogue to digital conversion: Data acquisition, time varying signals and the sampling theorem.


- Graphical programming: Fundamentals of a graphical programming environment for the creation of a ‘virtual instrument’, e.g. LabVIEW.

**Project:** Students will be assigned projects that will involve the automation of an experiment, both in terms of the hardware and software requirements.


**Class Contact** 48 hours per semester of lecture/tutorial/laboratory sessions.

**Assessment** 20% assignments submitted throughout the semester; 40% written examination; 40% project and report.

**REP4200 DIRECTED STUDIES IN PHYSICS 2**

**Campus** Footscray Park

**Prerequisite(s)** Satisfactory completion of a first year physics sequence of at least two semester’s duration.

**Content** A selection of topics from the following:

- Classical Mechanics; Thermodynamics *; Electromagnetism *; Optics *; Quantum Mechanics *; Nuclear Physics *; Relativity; High Energy Physics; Electrical and Electronic Machines.

- Advanced studies which extend the material covered in first year subjects.

**Required Reading** No text will be prescribed. Students will be expected to read widely around the topics in the subject.


- Specialist Books: According to the topics chosen for each student or group of students with a similar background.

**Class Contact** 60 hours per semester of lecture/tutorial/seminar/laboratory sessions.

**Assessment** A series of regular group assignments and tests will be negotiated for each individual student or group of students with a similar background. The assessment regime will be equivalent to that
for a second year physics subject in a technological degree in the content areas covered by this subject whilst recognising the differing backgrounds of the students undertaking the subject – especially in mathematics.

**REP4300 EINSTEIN’S THEORY OF RELATIVITY**

**Campus** Footscray Park

**Prerequisite(s)** Nil

**Content** Newtonian Relativity; Frame of Reference transformations; Einstein’s relativistic postulates; Time dilation and length contraction; Relativistic velocity and mass; E=mc²; Introduction to General Relativity.

**Required Reading** No text will be prescribed. Students will be expected to read widely around the topics in the subject.


**Specialist Books:**

**Class Contact** 24 hours per semester of lecture/tutorial/seminar sessions.

**Assessment** 60% assignments submitted throughout the semester – approximate length of no more than eight A4 pages each; 40% classroom presentation chosen from a range of topics provided by the lecturer in charge.

**RMA1000 TRANSITION MATHEMATICS**

**Campus** Footscray Park

**Prerequisite(s)** VCE Further Mathematics or equivalent


**Class Contact** Five hour mix of lectures, tutorials and practical sessions for one semester.

**Assessment** End of semester examination of three hours duration equalling 60% of the total assessment of the subject. 5 in-semester practical experiences totalling 40% of the total assessment.

**RMA1001 ENGINEERING MATHEMATICS 1A**

**Campus** Footscray Park, Werribee

**Prerequisite(s)** Year 12 mathematics or its equivalent

**Content** Basic algebra, including index, log laws, indicial and log equations, algebraic expansions, Functions, straight line, parabola, circle etc. Mod function. Domain, range, inverse functions. Trig Functions and their graphs, period amplitude, degrees radians. Basic trig identities, Inverse Trig functions. Converting aCosx+bSinx to single Sin, Cosine terms; Limits, continuity, differentiation, rules, higher derivatives, Implicit differentiation. Tangents and Normals; Parametric differentiation, derivatives of logs and exponentials.

Rates of change, maximum and minimum problems. Trig and inverse trig derivatives, logarithmic differentiation; Introduction to integration. Fundamental theorem of Integral Calculus. Substitution rule. Areas, Mean values, Root mean square; Methods of integration, partial fractions, simple integration by parts; Introduction to differential equations, separation of variables, population growth, air resistance; Complex numbers; Vectors.


**Class Contact** 60 hours of lectures/tutorials per semester.

**Assessment** There will be class tests, worth 30%, and an end of semester examination worth 70%. No word length limit applies.

**RMA1002 ENGINEERING MATHEMATICS 1B**

**Campus** Footscray Park

**Prerequisite(s)** A pass in RMA1001 Engineering Mathematics 1A.


Chapter 1: Newton Raphson, numerical integration. Midpoint, Trapezoidal and Simpsons rules.

**Class Contact** Five hour mix of lectures, tutorials and practical sessions for one semester.

**Assessment** There will be class tests, worth 30% and an end of semester examination worth 70%. No word length limit applies.
RMA1110 MATHEMATICS FOR THE BIOLOGICAL AND CHEMICAL SCIENCES 1

Campus Werribee, St. Albans
Prerequisite(s) One of the Year 12 mathematics subjects
Content Revision of basic algebra and logarithms. Discussion of units, accuracy, precision and significant figures in experimental work. An introduction to matrices and matrix manipulation. Functions and graphs. Solutions of polynomial equations and the general concept of an equation and its solution. Introduction to the methods and applications of differential calculus – local and global max/min. Fitting functions to points and the method of least squares.
Recommended Reading Some web based references provided during presentation of the subject.
Class Contact Four hours per week for one semester consisting of one, one hour lecture and three hours of practice classes.
Assessment Test 1 (week 3), 15%; Test 2 (week 10), 25%; Final Examination, 60%.

RMA1120 STATISTICS FOR THE BIOLOGICAL AND CHEMICAL SCIENCES 1

Campus Werribee, St. Albans
Prerequisite(s) One of the Year 12 mathematics subjects
Content Representing data graphically and standard summary statistics. Elementary notions of probability and random variable (discrete and continuous). The binomial and normal variables. Point and interval estimation and testing hypotheses on proportions, means and variances.
Class Contact Four hours per week for one semester consisting of one, one hour lecture, one, two hour tutorial and one, one hour computer laboratory.
Assessment Tutorial test (15%), computer test/assignment (15%) examination (70%).

RMA2120 MATHEMATICS FOR THE BIOLOGICAL AND CHEMICAL SCIENCES 2

Campus Werribee
Prerequisite(s) RMA1110
Required Reading To be advised.
Class Contact 2 x two hr workshops per week.
Assessment Assignments (2 x 1000 words), 30%; Oral Presentations (2 x 5 mins), 20%; Exam (1 x two hours), 50%.

RMA3071 INTRODUCTION TO COMPUTER UTILISATION

Campus Werribee
Prerequisite(s) Nil
Content Web design, Hypertext Mark-up Language (HTML), C Program, Microsoft Excel.
Required Reading To be advised.
Class Contact Three hours per week for one semester, comprising one-hour lectures and two one-hour tutorial/lab.
Assessment Final examination: 70%; Assignment/test: 30%.

RMA4001 ADVANCED MATHEMATICS FOR ELECTRICAL ENGINEERS

Campus Footscray Park
Prerequisite(s) VEL2002 Linear Systems and Mathematics 2B.
Content A range of topics are to be selected from the following areas: (1) Numerical linear algebra, (2) Constraint and unconstraint optimization problems, (3) Iterative solutions of nonlinear algebraic equations and ordinary differential equations, (4) Mean square theory of random processes.
Required Reading Advanced Mathematics for Electrical Engineers Subject Notes, Victoria University.
Class Contact 60 hours of lecture/tutorial per semester.
Assessment Mid-semester test 40% Examination 60%.

RMS1000 BIOTECHNOLOGY PROFESSION

Campus Werribee
Prerequisite(s) Nil
Content Context specific materials from the world of biotechnology will be used to develop the students’ awareness and understanding of the professional skills and duties that comprise professional practice. Practicing biotechnologists and other scientists will be invited to give presentations on their experiences in the profession. The ethics of biotechnology practice will be emphasised and students will be will be encouraged to give formal and impromptu presentations on biotechnology and society.
Required Reading Students will be asked to review a selection of papers from the literature.
Recommended Reading To be advised
RMS1171 BIOCHEMISTRY 1 (OSTEOPATHY)

Campus St Albans, City Flinders
Prerequisite(s) Nil
Content An overview of dietary requirements and how nutrients such as proteins, carbohydrates and fats are metabolised and the energy requirements of the body will be provided. Relevant biochemical pathways will be discussed for normal function of viscera, bone and soft tissue. The role of major molecules of neural pathways (neurotransmitters) as well as mediators of tissue growth, pain and inflammation will be discussed. Common abnormal conditions such as hepatic and cardiac disease, and muscle degeneration will be discussed, and biochemical tests for these will be introduced. An overview of nucleotide metabolism, DNA and RNA metabolism: inborn errors of metabolism and hormonal regulation of metabolism will also be covered.
Subject Hours Semester One: four hours per week each semester comprising a mixture of three hours of lectures and one hour of tutorial. Semester Two: three hours of laboratory/workshops.
Assessment Written exam 60% Reports 40%. Please note that Biochemistry is a two subject semester. First semester passing grades will appear on academic transcripts as X. First semester fail grades will appear as N1 or N2, and will be amended if the subject is passed in entirety at the end of the academic year. First semester grades will be published by the lecturer after the meeting of the examination board.

RMS1300 BIOPROCESSING TECHNOLOGY

Campus Werribee
Prerequisite(s) RBF2300 Microbiology 1
Content Topics include the principles of biochemical engineering, process flow charts, material and energy balances, fluid statics and dynamics, bioreactor design, production and maintenance of commercial strains, scale up, downstream processing including harvesting, concentration and purification of bioproducts, sterilization.
Class Contact 5 hours per week comprising three hours of lectures and two hours of laboratory work.
Assessment Assignment (1 x 2000 words), 20%; Laboratory Reports (4 x reports), 30%; Exam (1 x three hrs), 50%.

RMS3010 BIOPROCESSING APPLICATIONS

Campus Werribee
Prerequisite(s) Nil
Content Topics include enzyme production and applications, algal biotechnology, bioremediation, bioleaching of metals from low grade ore, commercial and domestic wastewater treatment, biomass conversion and microbial fuel production. The ethical issues associated with these topics will be discussed.
Class Contact 5 hours per week comprising three hours of lectures and two hours of laboratory work.
Assessment Assignment (1 x 2000 words), 20%; Laboratory Reports (4 x reports), 30%; Exam (1 x three hrs), 50%.

RMS3020 GENOMICS, PROTEOMICS AND BIOINFORMATICS

Campus Werribee
Prerequisite(s) RBF2520 Biochemistry 1.
Content An overview and definitions of terms; the logic, scope and rationale of genomics and proteomics; descriptions of approaches used in genomics and proteomics; applications of bioinformatics including accessing internet resources such as GenBank and EMBL, data mining, and using programs such as BLAST and FASTA; examples of applications in a range of settings including forensics, drug design, medical research. The theory underpinning a range of analytical techniques used in nucleic acid and protein analysis will also be covered. Ethical issues concerning the ownership of and access to information in databanks will be covered.
Class Contact 5 hours per week comprising three hours of lectures and two hours of laboratory work.
Assessment Assignment (1 x 3000 words), 20%; Laboratory Reports (10 x reports), 30%; Exam (1 x three hrs), 50%.

RMS3030 GENETIC ENGINEERING

Campus Werribee, St Albans
Prerequisite(s) RBF2520 Biochemistry 1; RBF2390 Molecular Genetics.
Content The subject will include gene cloning, PCR, restriction enzymes and their uses; site-directed mutagenesis; heterologous gene expression systems; DNA profiling and forensics; Southern and Northern Blotting; gene mapping; transgenics and gene knockouts; the Human Genome Project and gene therapy; recombinant DNA-based medical diagnostics; positional cloning; plant genetic engineering; and the ethics, risks and benefits of genetic engineering.
Class Contact 5 hours per week comprising three hours of lectures and two hours of laboratory work.

Assessment Assignment (1 x 3000 words), 20%; Laboratory Reports (10 x reports), 25%; Exam (1 x three hrs), 55%.

RMS3050 ADVANCED MEDICAL MICROBIOLOGY

Campus Werribee

Prerequisite(s) RBF2310 Microbiology 2 or equivalent.

Content The unit will focus on the molecular aspects of microbial pathogenesis and highlight the principal intervention strategies used to treat infectious diseases. The emphasis will be on the relationship between a pathogen (bacteria, viruses and protozoans) and its human host. An in depth review of the life cycles of several organisms will inform discussion of the current research in the areas of pathogenesis, genetic and phenotypic variation in pathogens and the implications for treatment and control strategies. Consideration will be given to the ethical issues relating to eg vaccination protocols and antimicrobial therapy.

Required Reading Students will be asked to review a selection of papers from the current literature.


Class Contact Three hours per week comprising lectures and tutorials.

Assessment Assignment (1 x 3000 words), 40%; Exam (1 x three hrs), 60%.

RMS3060 MICROBIAL TECHNOLOGY AND CELL CULTURE

Campus Werribee

Prerequisite(s) RBF2300 Microbiology 1 or equivalent.

Content Topics include batch, fed-batch and continuous culture, bioreactors and their various modes of operation, plant cell culture and animal cell culture. Topical issues related to the ethics associated with the source and use of various cell lines eg. stem cells, will be discussed.


Class Contact three hours per week, comprising lectures and practical work in alternating weeks.

Assessment Laboratory Reports (3 x reports), 40%; Exam (1 x two hrs), 60%.

RMS3040 PROJECT 1 – BIOTECHNOLOGY

Campus Werribee

Prerequisite(s) Students would normally be expected to have completed all Year 1 and 2 subjects.

Content This subject covers project methodology, experimental and analytical design, and research plan preparation. A project will be selected by the student in consultation with academic staff and will, as far as is possible, address a genuine research issue related to Biotechnology.

Required Reading Third Year Project Study Guide, 2006, Victoria University; Students will be required to review from the current literature a selection of papers related to their chosen topic.

Recommended Reading Texts and peer-reviewed literature related to the chosen topic.

Class Contact 6 hours per week, comprising workshops (1 hr) and laboratory work (5 hours).

Assessment Written Proposal (1 x 2,500 words), 40%; Oral Presentation (2 x 15 mins), 30%; Critical Overview (1 x 2,000 words), 30%.

RMS3045 PROJECT 2 – BIOTECHNOLOGY

Campus Werribee

Prerequisite(s) Students would normally be expected to have completed Project 1-Biotechnology.

Content This subject covers project methodology, experimental and analytical design, research plan preparation, analysis of results and thesis writing. A project will normally have been selected by the student in consultation with academic staff in the prerequisite subject, Project 1-Biotechnology.

Required Reading Third Year Project Study Guide, 2006, Victoria University; Students will be required to review from the current literature a selection of papers related to their chosen topic.

Recommended Reading Texts and peer-reviewed literature related to the chosen topic.

Class Contact 6 hours per week, comprising workshops (1 hr) and laboratory work (5 hours).

Assessment Final Report Introduction (1 x 2,500 words), 30%; Oral Presentation (1 x 20 mins), 20%; Final Report (1 x 5,000 words), 50%.

RHN2110 DISEASE AND HEALTH

Campus Werribee

Prerequisites Nil.

Content The unit will study inflammatory and immune responses and pathogenic process of common disorders. Inflammatory and immune responses, essentials of the pathologic process of the common disorders with nutritional involvement, including; anaemia, alimentary dysfunction, cardiovascular disease, cancer, obesity, diabetes, inborn errors of metabolism. Diagnostic and therapeutic modalities.

Required Reading Gould, BE. 1997. Pathophysiology for the Health Related Professions, Saunders, USA.


Class Contact Four hours per week comprising of lecture/tutorial/workshop for one semester.

Assessment Assignment, 40%; final examination, 60%.

RHN3210 SPECIAL TOPICS IN NUTRITION, FOOD AND HEALTH SCIENCE

Campus Werribee

Prerequisites RBF2750 Nutrition, or RBF2260 Diet and Nutrition, or equivalent, and RBF2210 Food Components or equivalent

Content To develop and study a selected aspect of nutrition and food science, requiring conduct of a project of a selected topic. Recent advances and controversies in selected topics of nutrition and food science, including: GMO’s, nutrition labelling, nutrient fortification, reference intake levels, nutrigenomics.

Required Reading Student will be responsible for reviewing current literature on their project topic.
RPH411 PHYSICS 4 (HONOURS)

Campus Footscray Park

Prerequisite(s) Eligibility for entry to the Bachelor of Science (Honours) in Physics program.

Content This subject consists of advanced coursework and a research thesis.

Coursework: Compulsory core units of quantum mechanics, statistical mechanics and research methods, plus elective units from the following areas: optical waveguides and sensors, relativistic surface physics, ion beam techniques, optics of materials, laser physics, lasers and optoelectronics, fibre optics, solid state physics, diffraction from crystals, nuclear physics. Other electives may be approved, including those offered at other universities. All electives must be approved by the Course Co-ordinator.

Research Thesis: A research project will be undertaken in one of the Physics research areas, under the supervision of a member of academic staff. Subject to approval, research may be undertaken at a laboratory outside the University.


Class Contact Average of 20 hours per week for two semesters.

Assessment is based on coursework, 50%; research thesis, 50%. The research project will consist of oral presentation and a thesis of approximately 5,000–10,000 words.

VAA2002 ELECTRICAL POWER SYSTEMS 1

Campus Footscray Park

Prerequisite(s) REP 1003 Engineering Physics 1C

Content Electrical Circuits. Provides students with a sound knowledge of elementary electrical circuits, performance characteristics of motors and generators, and basic electronic devices.


Class Contact three hrs of lectures and two hrs of tutorials/laboratory per week

Assessment Electrical Circuits (EC) – 8 weeks work: Homework submissions (4 @ 5%), 20%; Laboratory Report, 10%; Mid-semester test: (Based on weeks 1-6), 20%. Power Distribution (PD) – four weeks work: Homework submissions (2 @ 5%), 10%; Project (2000 words equivalence), 15%; three hour examination, 50%; Weighting, 66.7% of [EC + PD] + 3hr exam = subject assessment. Based on a project, 20%; and a review of all assignments (which may include tests and other class exercises) set during the semester, 10%; and a final three hour examination, 70%.

VAA2031 ARCHITECTURAL HISTORY & DESIGN

Campus Footscray Park

Prerequisite(s) Nil.

Content Slide presentation on the History of Architecture: Presentation of drawing/sketching techniques; Presentation of design concepts including Anthropometrics, Proportion, Light, Texture etc; Environmental influences; Workshops on freehand drawing; Workshops on model making.

Required Reading Victoria University, WebCT, web site resources for the subject.

Recommended Reading Sir Banister Fletcher, ‘A History of Architecture’, 19th or 20th edition; Le Corbusier, Towards a New Architecture (any other publications by), Le Corbusier, and Frank Lloyd Wright.

Class Contact three hrs of lectures and two hrs of tutorials per week

Assessment Submission of a report on the History of Architecture – 4000 words (individual report), 30%; Submission of drawing folio of class generated projects, 30%; Submission of 3D model, 40%; Based on a major project, 60%; and a review of all assignments (which may include tests, class exercises and seminar presentations) set during the semester, 40%; to an equivalent of 5000 words.

VAA3001 ELECTRICAL POWER SYSTEMS 2

Campus Footscray Park

Prerequisite(s) VAA 2002 Electrical Power Systems 1


Class Contact three hrs of lectures and two hrs of tutorials/laboratory per week

Assessment Class participation, 5%; Project, 30%; [individual report 5000 words equivalence]; Final three hour examination,65%.

VAA3031 ENVIRONMENTALLY SUSTAINABLE DESIGN 1

Campus Footscray Park

Prerequisite(s) VAN2041 Thermofluids.

Content This subject aims to provide students with an overview of the main issues involved in the integrated design of buildings aiming to achieve sustainable development. Although the subject is self-contained, it is the first component of the suite Engineering Architectural Engineering Design 1, 2 and 3. Major topics covered include: climate change, basic principles of ecological buildings; buildings of tomorrow: examples and ideas, including natural ventilation in buildings, thermal storage, façade design for

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daylighting and solar energy transmission, air quality improvement; active measures of renewable energy usage, including solar, wind and geothermal energy, rainwater and utilisation of the organic matter.

**Required Reading** Daniels, K., 1997, *The Technology of Ecological Building, Birkhäuser; Notes provided by the lecturer.


**Class Contact** Two hrs of lectures and three hrs of tutorials per week

**Assignment** Assignment 1: based on weeks 1-6 (Up to 1500 words – individual report), 35%; Assignment 2: based on weeks 7-11 (Up to 3500 words – group report), 35%; two hour examination, 30%.

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**VAA3032 ENVIRONMENTALLY SUSTAINABLE DESIGN 2**

**Campus** Footscray Park

**Prerequisite(s)** VAA3071 HVAC Systems 1, VAA3031 Environmentally Sustainable Design 1.

**Corequisite(s)** VAA3072 HVAC Systems 2


**Required Reading** Oesterle, E. et al., 2001, *Double-skin Facades, Prestel Publishing; Thorpe, GR., 2005, Lecture notes on numerical heat transfer in building-elements; Notes provided by the lecturer.*


**Class Contact** Two hrs of lectures and three hrs of tutorials per week.

**Assessment** Assignment 1: based on weeks 1-4, 15%; Assignment 2: based on weeks 1–7, 15%; Assignment 3: based on weeks 8–9, 20%; Assignment 4: based on weeks 10–12, 20%; two hour examination, 30%. The assessment tasks will demonstrate that students are capable of presenting sustained intellectual arguments. Some of the arguments take the form of narratives, whilst some of the arguments will be intensely mathematical, but illustrative of the narratives. It is expected that the written work will be based on rational argument and it will not be based on dubious ways of knowing and epistemologies. It is anticipated that students will be able to celebrate the achievements of scientific method over primitive myths. Each assessment task will be 500-1000 words.

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**VAA3042 HYDRAULIC SERVICES SYSTEMS**

**Campus** Footscray Park

**Prerequisite(s)** VAC2042 Hydraulics

**Content** Types and components of building water supply systems. Assessment of demands and flows. Design criteria; head losses in pipes and fittings. Analysis and design of hot and cold pipework systems. Pumps-pump and pipeline selection. Pressure systems. Selection and arrangement of mains pressure commercial hot water units to supply to hot water fixture outlets. Theory and design of roof drainage, storm water systems and sewer drainage systems including materials, fixtures and fittings, and the general requirements for fully vented and modified, single stock and modified sewage plumbing systems, all for building sites, residential and multi storied commercial buildings. Introduction to sewage treatment and the treatment processes.

**Required Reading** Class Notes; AS 3500 (2003), *National Plumbing and Drainage Code Parts 0–4.*


**Class Contact** Three hrs of lectures and two hrs of tutorials/ laboratory per week.

**Assessment** Assignment 1: Water supply design and report for commercial building (Calculations, sketches, max word limit of 2000 words), 15%; Assignment 2: Waste water design and report for previous building (Calculations, sketches, max word limit of 2000 words), 15%; Assignment 3: Report on particular aspects of a site visit (Max word of 1500), 10%; three hour examination, 60%.

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**VAA3071 HVAC SYSTEMS 1**

**Campus** Footscray Park

**Prerequisite(s)** VANZ041 Thermofluids, VAC2042 Hydraulics.


**Class Contact** Two hrs of lectures and three hrs of tutorials per week

**Assessment** Assignment 1: (group assignment, up to 2500 words), 30%; Assignment 2: (group assignment; up to 2000 words + calculations + diagrams), 35%; two hour examination, 35%.
VAA3072 HVAC SYSTEMS 2
Campus Footscray Park
Prerequisite(s) HVAC Systems 1.
Class Contact two hrs of lectures and three hrs of tutorials per week.
Assessment Assignment 1 (group assignment; up to 3000 words), 30%; Assignment 2 (group assignment; up to 3000 words), 35%; two hour examination, 35%.

VAA3081 BUILDING CONSTRUCTION AND LEGISLATION 1
Campus Footscray Park
Prerequisite(s) EAH2831
Required Reading Australian Building Codes Board (ABC) (2005), Building Code of Australia (BCA) 2005 Volume Two, CanPrint Communications Pty Ltd; Class Notes
Class Contact three hrs of lectures and two hrs of tutorials/laboratory per week.
Assessment Architectural Lighting (AL) – three hours per week: Tutorial work assessment (5 submissions @ 2%), 10%; Project 1 – Assessment of existing lighting system (2000 words equivalence), 20%; Project 2 – Design of a lighting system, 30%; Communications Systems (CS) – two hours per week: Project 1 (Individual report 2000 words equivalence), 15%; Project 2 (Individual report 3000 words equivalence), 25%; Final three hour examination, 50%; Weighting, 50% of [ AL + CS ] + 3hr exam = subject assessment

VAA4001 ARCHITECTURAL LIGHTING AND COMMUNICATIONS SYSTEMS
Campus Footscray Park
Prerequisite(s) VAA 3001 Electrical Power Systems 2.
Class Contact three hrs of lectures and two hrs of tutorials/laboratory per week.
Assessment Architectural Lighting (AL) – three hours per week: Tutorial work assessment (5 submissions @ 2%), 10%; Project 1 – Assessment of existing lighting system (2000 words equivalence), 20%; Project 2 – Design of a lighting system, 30%; Communications Systems (CS) – two hours per week: Project 1 (Individual report 2000 words equivalence), 15%; Project 2 (Individual report 3000 words equivalence), 25%; Final three hour examination, 50%; Weighting, 50% of [ AL + CS ] + 3hr exam = subject assessment

VAA4032 ENVIRONMENTALLY SUSTAINABLE DESIGN 3
Campus Footscray Park
Prerequisite(s) VAA3032 Environmentally Sustainable Design 2, VAA4071 Architectural Lighting and Communication Systems, VAA3071 HVAC Systems 1, VAA3072 HVAC Systems 2.
Content Introduction to IES Virtual Environment software package of integrated building performance analysis tools (commercially
used by architects, engineers, planners and facilities managers). Computer modelling of buildings including thermal and solar performance, natural ventilation, natural and artificial lighting and CFD. Analysis of alternative scenarios to optimise the performance of the building through the design process.

Required Reading ESI Virtual Environment software manual; Notes provided by the lecturer; Class notes on WebCT.


Class Contact two hrs of lectures and three hrs of tutorials per week.

Assessment Assignment 1: (group assignment; up to 3000 words; calculations diagrams), 30%; Assignment 2: 70%.

VAA4042 BUILDING FIRE SAFETY SYSTEMS

Campus Footscray Park
Prerequisite(s) Nil.


Required Reading Australian Building Codes Board (ABCB) (2005), Building Code of Australia (BCA) 2005 Volume One, CanPrint Communications Pty Ltd; Class Notes.


Class Contact three hrs of lectures and two hrs of tutorials per week.

Assessment Assignment 1: fire-safety services investigation (sketches, max word limit of 3000), 20%; Assignment 2: hydraulic design using hyena software (calculations, sketches, max word limit of 3000), 20%; Class Tutorial Exercises (sketches, max word limit of 1500), 10%; three hour Examination, 50%.

VAA4051 BUILDING QUANTITIES AND COSTS

Campus Footscray Park
Prerequisite(s) VANS052 Engineering Management.


Class Contact two hrs of lectures and 1hr of tutorial and computer lab session per week.

Assessment Assignment 1: based on weeks 1-5 (calculations, sketches, computer applications, max word limit of 1000), 15%; Assignment 2: based on weeks 6-11 (calculations, sketches, computer applications, max word limit of 1000), 15%; Class Tutorial Exercises Based on Weeks 1-11 [calculations, sketches, computer applications, max word limit of 500], 10%; three hour examination, 60%.

VAA4071 HVAC SYSTEMS 3

Campus Footscray Park
Prerequisite(s) VAA3072 HVAC Systems 2.


Class Contact three hrs of lectures per week.

Assessment Assignment 1: (Group assignment; up to 3000 words), 30%; Assignment 2: (Group assignment; up to 3000 words + calculations + diagrams, 35%; three hour examination, 35%.
VAA4091 STRUCTURAL DYNAMICS 1

Campus Footscray Park
Prerequisite(s) RMA 1002 Engineering Mathematics 1B & REP 1003 Engineering Physics 1C.

Content Introduction to structural vibrations. Degree of freedom of a system – vibrations of undamped and damped systems, harmonically excited vibration of systems, response systems to harmonic forced excitation, general forcing functions. Eigenvalue for a system, determination of natural frequencies and mode shapes, structural vibration simulation using computer software.


Class Contact two hrs of lectures and one hr of tutorials per week

Assessment Computer based assignment (3000 words equiv.), 25%; Mid-sem. test (1 hr), 15%; Tutorial presentation (15 mins), 5%; three hour examination, 60%.

VAA4092 BUILDING SYSTEMS DESIGN AND CONSTRUCTION

Campus Footscray Park
Prerequisite(s) VAA3072 HVAC Systems 2.

Content This subject aims to provide students with an overview of key concepts involved in the integration of building services with building structure, during the design and construction stages. Students are exposed, through a range of lectures and site visits, to constructability/buildability and co-ordination aspects of building services, as well as to compliance with building codes and regulations. Issues involving integrated building design to minimise construction costs and achieve sustainable construction methods are also introduced.

Required Reading Notes and handouts provided by the lecturers.


In addition, students are required to read current journal articles and other relevant popular publications.

Class Contact two hrs of lectures and three hrs of tutorials per week.

Assessment Assignment 1 [5000 words group assignment], 65%; two hour examination, 35%.

VAC2042 HYDRAULICS

Campus Footscray Park
Prerequisite(s) VAN2041 Thermofluids

Content Fluid resistance and boundary layers; Development of pipe friction equations and their use. Fluid flow through pipelines; inter-reservoir- pipeline flow, branching pipelines, parallel pipelines; Pumps – positive displacement and rotodynamic systems. Pump performance equations, affinity laws and specific speed. Pump selection for particular duties; Flow in open channels – fundamentals (continuity, energy and momentum equations), discharge equations, specific energy and critical depth relationships, flow transitions and weirs and flumes. Gradually varied flow and water surface profiles. Introduction to unsteady flow condition.


Class Contact three hrs of lectures and two hrs of tutorials/ laboratory sessions per week.

Assessment Assignment 1: based on video set on boundary layers [Report, sketches, max word limit of 1500], 10%; Assignment 2: based on self selected site visit in week 9 [Report, photographs, sketches, max word limit of 1500], 10%; Tests [3 x 1hr in wks 4, 7 &11], 30%; three hour examination, 50%.
VAC2071 SURVEYING

Campus Footscray Park
Prerequisite(s) Nil
Content Surveying Reference and Basic Computations, Mapping, Vertical Measurement and Note Keeping, Angular Measurement and Note Keeping, Circular Curves, Contours and Contouring, Area Computations for Polygons, Rectangular co-ordinates, Computations for Earth Works, Digital Terrain Models, Geographic Positioning Systems, Victorian Land Title System.
Required Reading Class notes.


Class Contact two hrs of lectures and three hrs of field/tutorials per week.

Assessment Field work/tutorials 1: Basic Survey Computations (Max. 500 words), 5%; Field work/tutorials 2: Mapping (Max. 500 words), 5%; Field work/tutorials 3: Transferring a level to determine RL of a point (Max. 500 words), 5%; Field work/tutorials 4: Level traverse to determine RL of many points (Max. 500 words), 5%; Field work/tutorials 5: Determining angles in horizontal plane (Max. 500 words), 5%; Field work/tutorials 6: Circular curve set out (Max. 500 words), 5%; Field work/tutorials 7: Grid leveling and contouring (Max. 500 words), 5%; Field work/tutorials 8: Area and perimeter computations using co-ordinates (Max. 500 words), 5%; two hour examination, 60%; Students are required to pass both Field Work and Examination to receive a pass in the subject.

VAC2072 HIGHWAY ENGINEERING

Campus Footscray Park
Prerequisite(s) Nil
Content Earthworks including equipment, determination of quantities and costs; preparation and use of mass haul diagrams. Route location factors, route selection, horizontal alignment including circular curves and transition curves and superelevation, determination of sight distance; vertical alignment including grades and vertical curves. Pavement design methods for both flexible and rigid pavements, determination of number of equivalent standard axles, use of California Bearing Ratio. Road construction equipment capabilities. Introduction to road drainage methods, surface and vertical curves. Pavement design methods for both flexible and indeterminate plane trusses and frames. The flexibility method of structural analysis: Solution of redundant beams and frames.
The required load (‘plastic’) method of analysis of beams and frames; Frame stability analysis and buckling.


Class Contact three hrs of lectures and two hrs of tutorials per week.

Assessment Stage test: Based on weeks 1-6, 10%; Homework submissions: Based on 5 from 12 weeks, 5%; Assignment 1: Structural model design/making/testing/reporting (3000 words equivalence), 20%; Assignment 2: Computer structural analysis, 15%; three hour examination, 50%.

VAC3021 STRUCTURAL ANALYSIS

Campus Footscray Park
Prerequisite(s) VAN2021 Solid Mechanics 2.
Content Virtual Work method of structural analysis: Deflections and rotations of statically determinate trusses, beams and frames; The stiffness method of structural analysis: Solution of redundant beams and frames by equations of slope deflection; The effect of axial force on flexural stiffness; Stiffness analysis using matrices for determinate and indeterminate plane trusses and frames. The flexibility method of structural analysis: Solution of redundant beams and frames.


Assessment Based on weeks 1-6, 30%; Weekly tests, 30%; Assignments, 30%; 3 hour examination 10%.


Class Contact three hrs of lectures and two hrs of tutorials per week.

Assessment Stage test: Based on weeks 1-6, 10%; Homework submissions: Based on 5 from 12 weeks, 5%; Assignment 1: Structural model design/making/testing/reporting (3000 words equivalence), 20%; Assignment 2: Computer structural analysis, 15%; three hour examination, 50%.

VAC3031 CIVIL ENGINEERING DESIGN 1

Campus Footscray Park
Prerequisite(s) VAC2072 Highway Engineering, VAC2042 Hydraulics.
Corequisite(s) VAC3041 Hydrology and Water Resources.
Content Students will perform five designs of 12 hours each drawn from the areas of drainage, hydraulics, structures and highway engineering. Each design will have associated with it a writing task on aspects relating to the design. Students must also prepare and deliver one oral presentation on one of the designs performed during the semester.

Required Reading Class Notes and texts appropriate for each design.

Recommended Reading As recommended for each of the subjects on which each design is based.

Class Contact one hr of lecture and four hr of seminars/design sessions per week.

Assessment Design 1, 18%; Design 2, 18%; Design 3, 18%; Design 4, 18%; Design 5, 18%; Oral presentation, 10%. Each design involves calculations, analysis and preparation of engineering drawings and a separate written report of 800 words.

VAC3041 HYDROLOGY AND WATER RESOURCES

Campus Footscray Park
Prerequisite(s) VAC2042 Hydraulics.


**Class Contact** Three hrs of lectures and two hrs of tutorials per week. In one week, there will be two hrs of laboratory work.

**Assessment** Assignment 1: based on weeks 1-6 (Calculations, sketches, max word limit of 1000), 8%; Assignment 2: based on weeks 7-11 (Calculations, sketches, max word limit of 1000), 7%; Assignment 3: Lab on culverts (Calculations, sketches, max word limit of 700), 5%; Assignment 4: Use of application software RORB (Calculations, sketches, max word limit of 1500), 12%; Assignment 5: Use of application software REALM (Calculations, sketches, max word limit of 1000), 18%; three hour examination, 50%.

**VAC3042 HYDRAULIC ENGINEERING**

**Campus** Footscray Park

**Prerequisite(s)** VAC 2042 Hydraulics.

**Content** Urban Water Supply Schemes: Demand assessment and management, supply sources, dam types/spillways/outlet works/construction and safety issues, groundwater development works, water quality requirements and various types of treatment to satisfy these, service storage, pumping stations, reticulation system arrangements/layout and manual/computer analysis, pipeline design and construction. Irrigation: Purpose and principles of irrigation, irrigation water quality, channel design and structures, flood, furrow, sprinkler and trickle irrigation layout and design principles.


**Class Contact** Three hrs of lectures and two hrs of tutorials per week.

**Assessment** Assignment 1: Report based on material covered in weeks 1-7 (calculations, sketches, max word limit 2000), 15%; Assignment 2: Site visit report (max word limit of 1000). 5%; Assignment 3: Report based on material covered in weeks 8-11 (calculations, sketches, max word limit 1500), 10%; 0.5 hr Test (On material covered in weeks 1-8), 10%; three hour examination, 60%.

**VAC3061 GEOMECHANICS**

**Campus** Footscray Park

**Prerequisite(s)** VAC 1022 Solid Mechanics I


**Required Reading** Smith, G.N. and Smith, I.G.N. (1998), *Elements of Soil Mechanics*, 7th edn, Blackwell Science; Class Notes


**Class Contact** Three hrs of lectures and two hrs of tutorials/laboratory work per week.

**Assessment** Assignment 1: Report based on field geological/soils investigation (calculations, sketches, max word limit 2000), 15%; Assignment 2: Lab/practical work report on soil testing (calculations, sketches, max word limit 1000), 5%; Assignment 3: Solution of geotechnical problems (calculations, sketches, max word limit 1500), 10%; 0.5 hr Test On material covered in weeks 1-5, 10%; three hour examination, 60%.

**VAC3062 GEOTECHNICAL ENGINEERING**

**Campus** Footscray Park

**Prerequisite(s)** VAC 3061 Geomechanics

**Content** Earthworks and compaction of soils and crushed rock including methods, specification and field evaluation. Introduction to foundation design. Bearing capacity of shallow pad and strip foundations on fine and coarse-grained soils. Pile foundations including types and loading conditions. Load capacity of single driven and bored piles, and of pile groups. Immediate settlement. Consolidation theory and consolidation settlement of foundations on fine-grained soils. Settlement rates and allowable settlement. Lateral stresses in the ground. Active and passive stress states. Analysis and design of gravity, cantilever, propped and anchored retaining walls. Intro to structural design of foundations and construction issues including ground stabilisation and dewatering. Types and uses of geosynthetic materials. Identification and remediation of contaminated soils.

**Required Reading** Smith, G.N. and Smith, I.G.N. (1998), *Elements of Soil Mechanics*, 7th edn, Blackwell Science; Class Notes
Design and Construction


concrete simple and continuous beams – bending, deflection and high shear, columns, bolted and welded connections. Reinforced Concrete and bolted connections in simple shear. Steel beams, girders with... 234

Prerequisite(s)

Campus

VAC3092 STRUCTURAL DESIGN

Campus Footscray Park

Prerequisite(s) VAN 2032 Engineering Design


VAC4022 STRUCTURAL ENGINEERING ANALYSIS AND DESIGN 2

Campus Footscray Park

Prerequisite(s) VAC4021 Structural Engineering Analysis & Design 1.

Content The analysis topics include the basic concepts of finite element analysis. Element stiffness matrix and mass matrix. Element assembly and solution for unknowns. Analysis of 2D and 2D structures using a commercial finite element analysis package such as STRAND or ANSYS. The design topics commence simply supported beams. Basic methods involving load-balancing, crack control and full prestress. Prestress losses. Transfer. Bending strength. Web and flurxual shear. Anchorag...
Class Contact three hrs of lectures and two hrs of tutorials per week
Assessment Analysis part: Stage test: Based on weeks 1-6, 20%; Assignment 1: Computer structural analysis (Calculations, sketches, max equivalent word limit of 1500), 40%; one hour examination, 40%.
Design part: Three hour mid-semester supervised assignment, 40% This assessment will be largely open-book. The assignment will be done under supervision to control plagiarism. (Calculations, sketches, max word limit of 1500).
2 hour examination, 60%; Subject final result derived from weightings = 60% to Design part and 40% to Analysis part.

VAC4032 CIVIL ENGINEERING DESIGN 2
Campus Footscray Park
Prerequisite(s) VAC3031 Civil Design 1; VAC3042 Hydraulic Engineering; VAC4071 Transportation Engineering; VAC4081 Environmental Engineering.
Content Students will perform five designs of 12 hours each drawn from the areas of drainage, hydraulics, geotechnical engineering and transportation engineering. Each design will have associated with it a writing task on aspects relating to the design. Students must also prepare and deliver one oral presentation on one of the designs performed during the semester.
Required Reading Class Notes and texts appropriate for each design.
Recommended Reading As recommended for each of the subjects on which each design is based.
Class Contact one hr of lecture and four hr of seminars/design sessions per week.
Assessment Design 1, 18%; Design 2, 18%; Design 3: 18%; Design 4, 18%; Design 5, 18%; Oral presentation,10%
Each design involves calculations, analysis and preparation of engineering drawings and a separate written report of 800 words.

VAC4071 TRANSPORTATION ENGINEERING
Campus Footscray Park
Prerequisite(s) Nil
Content Demand for transport and the significance of transport and freight movement to the economy; road safety issues; transport planning techniques including trip generation, trip distribution, mode split and trip assignment models. Traffic engineering aspects – flow theory; road capacity; headways; gaps; speed analysis. Intersection analysis; use of SIDRA program to aid design and analysis of signalised intersections; traffic survey methods and analysis; local area traffic management studies; travel demand management.
Class Contact two hrs of lectures and one hr of tutorials per week.
Assessment Assignment 1: Site Investigations Report (2000 words), 15%; Assignment 2: Trip generation and trip distribution (Calculations & analysis equivalent to approx. 6 pages), 15%; three hour examination, 70%.

VAC4072 ENVIRONMENTAL PLANNING AND DESIGN
Campus Footscray Park
Prerequisite(s) Nil
Content This subject covers areas of sustainable rural and urban land development including biophysical and socio-economic data collection and inventories, environmental sensitivity mapping and land capability analysis, green city/urban forest concepts, planning permit issues and processes including meeting procedure, open space concepts and energy and water conservation, residential subdivisions and appropriate street designs.
Required Reading Victoria, Dept. of Infrastructure, 2001, Victoria Planning Provisions (incorporating Rescode); Class Notes.
Recommended Reading McCarg, 1992, Design with Nature; Phillips, 1993, Designing Subdivisions to Save and Manage Water; Victoria, Dept. of Infrastructure, 2002; Melbourne 2030, Planning for Sustainable Growth; City of Melbourne, 1999; City Plan – Municipal Strategic Statement; Victoria, Dept. of Infrastructure, 1996, Transporting Melbourne.
Class Contact two hrs of lectures and one hr of tutorials per week.
Assessment Assignment 1: Land development suitability report 1500 words plus sketches, 16%; Assignment 2: Planning meeting report – 1200 words, 10%; Assignment 3: Subdivision and street design – calculations and engineering drawing equivalent to approx. 12 pages, 24%; 1.5 hour examination, 50%.

VAC4081 ENVIRONMENTAL ENGINEERING 1
Campus Footscray Park
Prerequisite(s) VAC 2042 Hydraulics.
Class Contact three hrs of lectures and two hrs of tutorials per week.
Assessment Assignment 1: Report based on material covered in weeks 1-5 (calculations, sketches, max word limit 2000), 15%; Assignment 2: Site visit report (max word limit of 1000), 5%; Assignment 3: Report based on material covered in weeks 6-11 (calculations, sketches, max word limit 1500), 10%; 0.5 hr Test (On material covered in weeks 1-6), 10%; three hour examination, 60%.
VAC4092 STRUCTURAL ENGINEERING DESIGN 1

Campus Footscray Park
Prerequisite(s) VAC3092 Structural Design.
Content Wind loads. Design of a steel portal frame building: cladding, secondary ‘cold formed’ members, framing systems for low-rise buildings, roof and wall bracing, computer analysis, rafters, columns, connections, knee and splice connections, and ‘plastic’ design of steel frames. Reinforced concrete elements: continuous beams, slender columns, slabs: method of coefficients, yield line analysis and design, strip method, equivalent frame.
Class Contact two hrs of lectures and one hr of tutorials per week.
Assessment Assignment 1: Lecture Summary on one of three lectures, 10%; Assignment 2: Site Visit 2 report, 15%; Class contributions: CV submission, Design Exercise, Debate, 15%; three hour examination, 60%.

VAC4092 STRUCTURAL ENGINEERING DESIGN 2

Campus Footscray Park
Prerequisite(s) VAC4091 Structural Engineering Design 1.
Class Contact three hrs of lectures and one hr of tutorials per week.
Assessment three hour mid-semester supervised assignment. This assessment will be largely open-book (Calculations, sketches, max word limit of 1500), 40%; two hour examination, 60%.

VAG1001 ENGINEERING PROFESSION 1A

Campus Footscray Park
Prerequisite(s) Nil.
Content This subject gives students an understanding of how society has developed as a result of science and engineering and the need for and responsibilities of the professional engineer. Topics considered include the role of an engineer, ethics, approaches to problem solving, the environment and sustainable development. This constitutes 50% of the subject material, the remaining 50% is devoted to developing written and oral communication skills.
Required Reading Faculty of Arts, Handbook of Communication Skills for First Year Students in the Faculty of Health, Engineering and Science, 2006, Victoria University; ‘Engineering in Society — Class Notes’.
Class Contact three hrs of lectures and two hrs of tutorials per week.
Assessment Assignment 1: Lecture Summary on one of three lectures, 10%; Assignment 2: Site Visit 2 report, 15%; Class contributions: CV submission, Design Exercise, Debate, 15%; three hour examination, 60%.

VAN2011 COMPUTATIONS AND ENGINEERING ANALYSIS

Campus Footscray Park
Prerequisite(s) RMA1002 Engineering Mathematics 1A, and VAN1011 Experimentation and Computing.

**Required Reading**

**Recommended Reading**

**Class Contact**
60 hours in one semester comprising lectures/tutorials/computer laboratory.

**Assessment**
- Computing test 1: two hours based on weeks 1–5, 30%.
- Computing test 2: two hours based on weeks 7–11, 30%.
- Theory test – two hours, 30%.
- Ongoing lab assignments (Word Limit of 1000), 10%

### VAM2042 THERMODYNAMICS AND FLUID MECHANICS 1

**Campus** Footscray Park

**Prerequisite(s)**
VAM2041 Thermofluids.

**Content**

**Required Reading**

**Class Contact**
- Three hrs of lectures and two hrs of tutorial/labatory sessions per week.

**Assessment**
- Class Test: based on weeks 1-6 (calculations, sketches, max word limit of 1000 words), 10%;
- Class Test: based on weeks 6-12 (calculations, sketches, max word limit of 1000 words), 10%;
- Assessment 3: Lab on Venture tube [calculations, sketches, max word limit of 1000 words], 10%;
- Assessment 4: Lab on refrigeration unit [calculations, sketches, max word limit of 1000 words], 10%;
- Final Exam: 3hrs, 60%.

### VAM2062 MATERIALS AND MANUFACTURE

**Campus** Footscray Park

**Prerequisite(s)**
VAM2061 Engineering Materials.

**Content**

**Required Reading**

**Recommended Reading**

**Class Contact**
- Four hrs of lectures/common tutorials/discussion/field trip and one hr of tutorials and laboratory per week.

**Assessment**
- Test 1 in week 5, 10%; Test 2 in week 11, 10%;
- three Laboratory Reports. Students will require to achieve a minimum of 40% in these assessment tasks to successfully complete the subject (Maximum of 5000 words including calculations), 25%; three hour examination, 55%.

### VAM3012 SIGNAL ANALYSIS

**Campus** Footscray Park

**Prerequisite(s)**
VAM2011 Computation and Engineering Analysis.

**Content**

**Required Reading**
- Class Notes.

**Recommended Reading**

**Class Contact**
- Sixty hours of lectures, tutorials and laboratory work.

**Assessment**
- Laboratory report #1 [1500 words equiv.], 8%;
- Laboratory report #2 [1500 words equiv.], 8%; Laboratory report #3 [1500 words equiv.], 8%; Laboratory report #4 [1500 words equiv.], 8%; Laboratory report #5 [1500 words equiv.], 8%;
- Oral presentation (10 mins), 10%; three hour examination, 50%.
VAM3021 STRESS ANALYSIS 1

Campus: Footscray Park

Prerequisite(s): VAM2021 Solid Mechanics 2.


Required Reading: Lecture Notes by Danh Tran.


Class Contact: three hrs of lectures and two hrs of tutorials per week.

Assessment: Laboratory 1: three hour on Strain Gauge, report 2000-3000 words, 10%; Laboratory 2: three hour Photoelasticity, report 2000-3000 words, 10%; Test 1: based on Week 1-4, open book, one hour, 10%; Test 2: based on Week 6-8, open book, one hour, 10%; Examination: three hour (open book), 60%.

VAM3022 STRESS ANALYSIS 2

Campus: Footscray Park

Prerequisite(s): VAM3021 Stress Analysis 1.


Required Reading: Lecture Notes by Danh Tran.


Class Contact: 5 hrs of lectures and tutorials per week, including Finite Element computer based laboratory using a finite element software.

Assessment: Assignment 1: Truss analysis by Solid Mechanics and Finite Element, 1500-2000 words, 10%; Assignment 2: Stress analysis by ANSYS, 1500-2000 words, 10%; Test 1: based on Week 1-4, open book one hour, 10%; Test 2: based on Week 5-8, open book, one hour, 10%; Examination: three hour, open book, 60%.

VAM3031 MECHANICAL ENGINEERING DESIGN 1

Campus: Footscray Park

Prerequisite(s): VAM2032 Engineering Design.


Class Contact: 60 hours of lectures, tutorials and laboratory work per semester.

Assessment: Assignment 1: based on weeks 1-6 (Written report with a maximum of 5000 words, including calculations and sketches/drawings), 20%; Assignment 2: based on weeks 7-12 (Written report with a maximum of 5000 words, including calculations and sketches/drawings), 20%; Class Test: based on weeks 6, 10%; three hour examination, 50%.

VAM3041 THERMODYNAMICS AND FLUID MECHANICS 2

Campus: Footscray Park

Prerequisite(s): VAM2042 Thermodynamics and Fluid Mechanics 1.


Class Contact: three hrs of lectures and two hrs of tutorial/laboratory sessions per week.

Assessment: Class Test: based on weeks 1-6 (calculations, sketches, max word limit of 1000 words), 10%; Class Test: based on weeks 6-12 (calculations, sketches, max word limit of 1000 words), 10%; Assessment 3: Lab on external flows (calculations, sketches, max word limit of 1000 words), 10%; Assessment 4: Lab on Engine (calculations, sketches, max word limit of 1000 words), 10%; Final Exam: 3hrs, 60%.

VAM3071 DYNAMICS

Campus: Footscray Park

Prerequisite(s): RMA1002 Engineering Mathematics 1B and REP1003 Engineering Physics 1C.

Content: Introduction to dynamics, Kinematics of particles – rectilinear and plane curvilinear motion co-ordinates systems, 3-D curvilinear motion and relative motion. Plane kinematics of rigid bodies – rectilinear and plane curvilinear motion, relative velocity, instantaneous centre of zero velocity, relative acceleration, space curvilinear motion. Kinetics of particles – Newton’s law, work and energy, impulse and momentum. Plane kinetics of rigid bodies –
moments and products of inertia, Newton’s law, work and energy, impulse and momentum. Three-dimensional dynamics of rigid bodies – kinematics, kinetics, gyroscopic motion.


Class Contact: 60 hours of lectures, tutorials and laboratory work.

Assessment: Laboratory report #1 (2000 words equiv.), 5%; Laboratory report #2 (2000 words equiv.), 5%; Laboratory report #3 (2000 words equiv.), 5%; Computer based assignment, 10%; Mid-semester test (1 hr), 10%; Tutorial presentation (15 mins), 5%; three hour examination, 60%.

VAM3072 MECHANICAL VIBRATIONS

Campus: Footscray Park
Prerequisite(s): RMA1002 Engineering Mathematics 1B and REP1003 Engineering Physics 1C


Class Contact: 60 hours of lectures, tutorials and laboratory work.

Assessment: Laboratory report #1 (2000 words equiv.), 5%; Laboratory report #2 (2000 words equiv.), 5%; Laboratory report #3 (2000 words equiv.), 5%; Computer based assignment, 10%; Mid-semester test (1 hr), 10%; Tutorial presentation (15 mins), 5%; three hour examination, 60%.

VAM4021 COMPUTATIONAL MECHANICS

Campus: Footscray Park
Prerequisite(s): VAM3022 Stress Analysis 2, VAM3072 Mechanical Vibration.


Required Reading: Lecture Notes.

VAM4032 MECHANICAL ENGINEERING DESIGN 2

Campus: Footscray Park
Prerequisite(s): VAM3031 Mechanical Engineering Design 1.


Required Reading: Lecture notes.


Class Contact: 2-3 hrs of lectures and 3-2 hrs of tutorials per week.

Assessment: Substantial assignments/projects based on theory [sketches, graphs, tables, descriptions; word limit 500-1000], 20%; Mid-semester test, 30%; three hour examination, 50%.

VAM4041 HEAT TRANSFER AND COMBUSTION

Campus: Footscray Park
Prerequisite(s): VAM3041 Thermodynamics and Fluid Mechanics 1.

Each assessment task will be 500-1000 words. Celebrate the achievements of scientific method over primitive myths. We expect that the written work will be based on rational argument intensely mathematical, but illustrative of the narratives. It is expected that assignments will take the form of narratives, whilst some of the arguments will be presenting sustained intellectual arguments. Some of the arguments are based on weeks 7-12, 10%; based on weeks 1-6, 15%; based on weeks 7-12, 10%; and extrusion processes. Manufacturing techniques of composite materials. Energy analysis of materials/manufacturing cycle.

**VAM4042 FLUID MECHANICS**

**Campus** Footscray Park  
**Prerequisite(s)** VAM3041 Thermodynamics and Fluid Mechanics 2.  
**Content** An introduction to the power of computational fluid dynamics. Continuous equations and their discretised form. Solution of one-dimensional steady-state and transient diffusion problems. The Thomas algorithm. Generalisation to two- and three-dimensional problems. Difficulties inherent in dealing with advection, and an introduction to up-wind differencing and the power law methods. Advection and dispersion of scalar quantities. An introduction to commercial software that is based on the above fundamental principles.  
**Class Contact** Two hrs of lectures and three hrs of tutorials per week.  
**Assessment** Assignment 1: Based on weeks 1-3, 15%; Assignment 2: Based on weeks 1-6, 15%; Assignment 3: Based on weeks 7-8, 20%; Assignment 4: Based on weeks 7-12, 20%; Assignment 5: Based on weeks 7-12, 30%. The assessment tasks will demonstrate that students are capable of presenting sustained intellectual arguments. Some of the arguments take the form of narratives, whilst some of the arguments will be intensely mathematical, but illustrative of the narratives. It is expected that the written work will be based on rational argument and it will not be based on dubious ways of knowing and epistemologies. It is anticipated that students will be able to present the achievements of scientific method over primitive myths. Each assignment task will be 500-1000 words.

**VAM4047 ADVANCED MECHANICS**

**Campus** Footscray Park  
**Prerequisite(s)** VAM4021 Computational Mechanics.  
**Required Reading** Lecture notes.  
**Class Contact** Five hours of lectures and tutorials per week for 12 weeks, including experiments and computer-based laboratory.  
**Assessment**  
Laboratory 1: Three hour Vibration testing (report of 2000-3000 words), 20%;  
Laboratory 2: Three hour Modal analysis by ICATS (report of 2000-3000 words), 20%;  
Assignment 1: Modal analysis by Finite Element (2000-3000 words), 20%;  
Assignment 2: Crack modelling by Finite Element Modelling (2000-3000 words), 20%;  
Assignment 3: J integral by finite element modelling (2000-3000 words), 20%.
VAM4082 AUTOMOTIVE ENGINES, ENERGY AND ENVIRONMENT

Campus Footscray Park
Prerequisite(s) VAM3041 Thermodynamics.


Class Contact 60 hours in one semester comprising lectures, tutorials and practical laboratory sessions.

Assessment Test 1: based on weeks 1-6 (calculation, sketch and maximum 1500 words), 15%; Test 2: based on weeks 6-12 (calculation, sketch and maximum 1500 words), 15%; Written laboratory reports, assignment and presentation (calculation, sketch and maximum 2000 words), 20%; Final Exam: three hours, 50%.

VAN1011 EXPERIMENTATION AND COMPUTING

Campus Footscray Park
Prerequisite(s) Nil

Content Experimentation and measurement: The use of instrumentation, laboratory and technical procedures, work-place safety requirements, machine shop practice, report writing and oral presentation.

Data analysis and presentation: Algorithm development, Introduction to Data types, Data file reading and writing, Graphing and analysis of experimental data, curve fitting. Statistical and error analysis of experimental data, Solutions of equations.


Class Contact one hrs of lectures and four hrs of tutorial/laboratory sessions per week

Assessment Computing Assignment 1: based on weeks 1-5 (max of 1500 words report together with the solution printout and program source code), 10%; Computing Assignment 2: based on weeks 6-11 (max of 1500 words report together with the solution printout and program source code), 10%; Class Test: based on weeks 1-6, 15%; Class Test: based on weeks 6-12, 15%; four – Laboratory Reports (limit of 500 words reports on the individual experiments), 40%; Oral Presentation, 10%.

VAN1022 SOLID MECHANICS 1

Campus Footscray Park
Prerequisite(s) SPH1601 Physics 1AP

Content Review of concept of force. Equilibrium of coplanar forces. Resultant forces, component of forces; Levers and moments. 2D statical equilibrium. Free body force diagrams; Pin jointed trusses; Beams, loads and reactions. Internal forces in beams. Bending moment and shearing force diagrams for beams; 3D statical equilibrium; Direct stress and strain. Elastic modulus. Simple bending stress and strain. Shear stress and strain. Shear modulus; Poisson’s ratio.


Class Contact three hrs of lectures and two hrs of tutorials per week

Assessment Mid-semester test: Based on weeks 1-6, 10%; Homework submissions: Based on 10 from 12 weeks, 5%; Assignment: Model design/making/testing/reporting 3000 words equivalence (individual report), 25%; three hour examination, 60%.

VAN1032 INTRODUCTION TO DESIGN

Campus Footscray Park
Prerequisite(s) END1832

Content The design process and the history of Engineering design; Creative thinking in design, generating and evaluating design alternatives; Technical, environmental, human, economic, legal criteria for evaluation of design alternatives; Making the final decision in design; Professional Engineering drawing practice, projections and views, dimensioning, layout, assembly, detailed drawings and sketching; Computer generated drawings utilizing the commercial industry standard software AutoCAD.

Required Reading Fogler, H.S. and LeBlanc, S.E., 2003, Strategies for Creative Problem Solving, Prentice Hall PTR; Class Notes (handouts provided by the lecturer and notes on WebCT).


Class Contact two hrs of lectures and three hrs of tutorials/computer based drawing classes per week

Assessment Design: Six tutorial submissions, 24%; Peer review of draft design reports (1000 words – group assignment), 8%; Group submission (draft design report), 8%; Design notebooks, 10%; Final oral presentation, 10%; Creative design model, 10%; Final design report (1000 words – group assignment), 30%; Drawing: Class test, 10%; Two computer generated drawing tests, 10%; Eight assignments (one per week over eight weeks), 80%; Word limits are not applicable for the drawing component. Weighting: 60% Design and 40% Drawing = Final Subject %

VAN1051 ENGINEERING PROFESSION

Campus Footscray Park
Prerequisite(s) Nil

Content This subject gives students an understanding of how society has developed as a result of science and engineering, exploring the need for and the responsibilities of the professional
engineer. Topics considered include the role of an engineer, ethics, approaches to problem solving and design, the environment and sustainable development, professional written and oral communication skills including summarising, synthesising, referencing, report writing and poster presentation and communication processes and practices. Content is divided equally between consideration of these engineering issues and the development of written and oral communication skills.

**Required Reading** Engineering in Society 2006, Class Notes. VU, Faculty of Arts 2006, Handbook of Communication Skills for first year students in the Faculty of Health, Engineering and Science, 7th edn.

**Class Contact** Three hours per week for one semester based on one hour of lecture and two hour workshop.

**Assessment** Synthesis, 10%; Oral presentations (from demonstrations, debates, poster presentations, oral reports), 20%; Research report, 15%; Laboratory report, 15%; Examination, 40%.

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**VAN2021 SOLID MECHANICS 2**

**Campus** Footscray Park

**Prerequisite(s)** VAN1022 Solid Mechanics 1

**Content** Properties of sections, including area, centroids, first and second 'moments' of area; Polar moment of area. Principal axes of sections. Parallel axis theorem; Deflection of simple determinate beams. Deflections by Macaulay's method and superposition; Failure modes and loads for compression members, includes squashing/elastic buckling and combined effect of direct and bending stresses; Stresses and strains in two dimensions, Mohr’s circle, principal stress; Elastic/plastic bending stresses and shear stress distribution in beams; 3D statical equilibrium. Analysis of 3D statically determinate structures; Unsymmetrical bending. Shear centre. Principal axes; Torsion in solid and thin-wall tubes. Open and closed sections; Simple frames under bending and torsion.


**Class Contact** Three hrs of lectures and two hrs of tutorials per week.

**Assessment** Mid-semester test: Based on weeks 1-6, 10%; Homework submissions: Based on 10 from 12 weeks, 5%; Assignment: Model design/making/testing/reporting: 3000 words equivalence (individual report), 25%; three hour examination, 60%.

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**VAN2032 ENGINEERING DESIGN**

**Campus** Footscray Park

**Prerequisite(s)** VAN 1022 Solid Mechanics 1

**Content** Static Design: The static design covers static dead and live loads, the fundamental rationale in choosing design loads and the calculation of specific loads. Design of simple structural steel beams and columns. Design of bolted and welded connections in simple shear or tension.

Dynamic Design: The dynamic design covers, Design uncertainties and statistics, fits and tolerances. Theories of static failure, Low and high cycle fatigue failure, Torsional and linear Impact failure

**Required Reading** Class notes.


**Class Contact** Two hrs of lectures and three hrs of tutorials per week.

**Assessment** Three hour mid-semester supervised assignment (involves calculations, sketches, max word limit of 2000), 20%. The assignment will be done under supervision to control plagiarism. Three hour mid-semester supervised assignment (involves calculations, sketches, max word limit of 2000), 20%. The assignment will be done under supervision to control plagiarism. Three hour examination, 60%.

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**VAN2041 THERMOFLUIDS**

**Campus** Footscray Park

**Prerequisite(s)** REP1002, RMA1002

**Content** Basic concepts of thermodynamics and fluid mechanics. Thermodynamic properties of gases, liquids and solids. The ideal gas law. Energy transfer by heat, work and mass. The first law of thermodynamics for closed and open systems. Basic concept of second law of thermodynamics. Fluid statics-forces on submerged planes, Archimedes’ principle, and stability of floating bodies. Fluid dynamics – basic concepts of fluid flow. Continuity, momentum and energy equations in control volume forms. Application of these equations to pipe flows.


**Class Contact** Three hrs of lectures and two hrs of tutorial/labouratory sessions per week.

**Assessment** Class Test: based on weeks 1 - 6 (calculations, sketches, max word limit of 1000 words); 10%; Class Test: based on weeks 6 - 12 (calculations, sketches, max word limit of 1000 words); 10%; Assessment 3: Lab on stability of floating body (calculations, sketches, max word limit of 1000 words), 10%; Assessment 4: Lab on Tube and Shell heat exchanger (calculations, sketches, max word limit of 1000 words), 10%; Final Exam: 3hrs, 60%.

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**VAN2061 ENGINEERING MATERIALS**

**Campus** Footscray Park

**Prerequisite(s)** VAN1022 Solid Mechanics 1 and REP1001 Engineering Physics 1A.


**Required Reading**

**Recommended Reading**

**Class Contact**
Four hrs of lectures/common tutorials/field trips/ discussion classes and one hr of tutorials and laboratory classes per week.

**Assessment**
Test 1 in week 3, 7.5%; Test 2 in week 6, 7.5%; 2 Laboratory Reports. Students are required to achieve a minimum of 40% in these assessment tasks to successfully complete the subject (reports of maximum of 10 pages including calculations), 15%; three hour examination, 70%; Class tests and assignments, 25%; end of semester examination, 75%.

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**VAN3052 ENGINEERING MANAGEMENT**

**Campus**
Footscray Park

**Prerequisite(s)**
Nil

**Content**

**Required Reading**

**Recommended Reading**

**Class Contact**
Three hrs of lectures; 1hr of tutorial and 1hr of computer laboratory session per week.

**Assessment**
Tutorial 1: based on weeks 1-6 (calculation, sketches max words 200), 10%; Tutorial 2: based on weeks 7-11 (calculation, sketches max words 200), 10%; Assignment 1: Use of application software Excel (computer applications, max word 300), 10%; Assignment 2: Use of application software MSProject 2000 (computer applications, max word 300), 10%; three hour examination, 60%.

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**VAN4011 ENGINEERING PROJECT MANAGEMENT**

**Campus**
Footscray Park

**Prerequisite(s)**
VAN3052 Engineering Management

**Content**
The role of engineering project management in the industry. Tendering process, strategies and practices. Forms of construction contracts. Contract administration phases. Cost management system for the progressive cost control of a project. Plan site administration of medium sized projects. Financial feasibility for long-term development projects, break-even analysis, engineering project evaluation, and preparation of project cash flow budgeting, current construction industry practices. Understand various forms of project delivery methods. Developing quality management system, Developing quality assurance process; measuring process performance; feedback and corrective action; responding to external changes; alternative approaches to total quality management; Identifying the required resources – in terms of human, machines and materials; understanding the need vs. wants; selecting and appointing in a resource limited situation; managing through people; motivation; use of power; management styles;
effective project communication; Non adversarial approach to people management; role of unions and employer organisations in engineering industry; legal aspects relating to contracts, responsibility and liability of a manager running a small engineering company.

**Required Reading**
C. Bhuta and V. Sarma, Lecture Notes

**Recommended Reading**

**Class Contact**
three hrs of lectures; one hr of tutorial and one hr of computer laboratory session per week

**Assessment**
Assignment 1: based on weeks 1-6 (sketches, descriptions, max word limit of 1500), 12.5%; Assignment 2: based on weeks 7-11 (sketches, descriptions, max word limit of 1500), 12.5%; Assignment 3: Use of application softwares, 15%; three hour examination, 60%.

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**VAR2001 MECHATRONICS 1**

**Campus**
Footscray Park

**Prerequisite(s)**
VAR1001 Robotics 1.

**Content**
Co-ordinate and measurement systems, actuator and control systems, application of kinematics and dynamic concepts, trajectory planning and control, electronic and mechanical devices, sensors and instrumentation, application of power motors, actuators and transmission devices.

**Recommended Reading**

**Recommended Reading**

**Class Contact**
three hrs of lectures and two hrs of tutorials per week.

**Assessment**
Laboratory report #1, 5%; Laboratory report #2, 5%; Laboratory report #3, 5%; Assignment (maximum 1500 words), 10%; Mid-semester test, 10%; Tutorial presentation , 5%; three hour examination, 60%.

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**VEA3000 CONTROL SYSTEMS A**

**Campus**
Footscray Park

**Prerequisite(s)**
Linear Systems and Mathematics 2B.

**Content**

**Recommended Reading**
Control Systems A Subject Notes, Victoria University.

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**Recommended Reading**

**Class Contact**
60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment**
Mid-semester test 15%; Laboratory performance 10%; End of semester, open book examination 75%.

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**VEA4000 COMPUTER CONTROLLED SYSTEMS B**

**Campus**
Footscray Park

**Prerequisite(s)**
VEA3000 Control Systems A.

**Content**

**Assessment**
End of semester, open book examination 75%.

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**VEA4100 COMPUTER VISION AND APPLICATIONS**

**Campus**
Footscray Park

**Prerequisite(s)**
Completion of 2nd year.

**Content**
Computer vision algorithms and applications. Topics include: image-processing, camera models and calibration, multiple camera vision, 2D and 3D geometric object recognition. Laboratory application exercises will be used to reinforce theoretical and practical aspects.

**Required Reading**

**Recommended Reading**

**Class Contact**
30 hrs of contact comprising 15 hrs of lectures/tutorial and 15hrs of Laboratory.

**Assessment**
Examination 40%, Tests 10%, Laboratory Assignments 50%.
VEA4200 FUZZY CONTROL AND APPLICATIONS
Campus Footscray Park
Prerequisite(s) VEA3000 Control Systems A.
Content Introduction to fuzzy sets theory: vagueness and uncertainty formalisation problem, fuzzy sets theory and probability theory comparison and discussion, fuzzy set definitions, properties of fuzzy sets, operations on fuzzy sets. Fuzzy relations: classical relations, fuzzy relations, operation on fuzzy relations, the extension principal. Natural language formalisation and approximate reasoning: linguistic variables, fuzzy propositions, fuzzy if–then statements, inference rules. Theoretical fundamentals of fuzzy control: the structure of a fuzzy controller, the rule base, the data base, the inference engine, choice of fuzzification and defuzzification procedures. Software and hardware tools for fuzzy control. Fuzzy controller design using software packages. Fuzzy controller implementation. Applications of fuzzy control.
Class Contact 30 hours per semester comprising 15 hours of lectures/tutorial and 15 hours of laboratory and project work.
Assessment Class tests/assignments throughout the semester 20%, Laboratory work 40%, Project work 40%.

VEA4300 OPTIMAL CONTROL SYSTEMS
Campus Footscray Park
Prerequisite(s) VEA3000 Control Systems A.
Required Reading Optimal Control Systems Subject Notes, Victoria University.
Class Contact One and a half hours of lecture, one hour tutorial session per week for 12 weeks.
Assessment 2 assignments: 20% for each assignment; Examination: 60% (3 hours written examination, open book.)

VEA4400 ROBOTICS AND AUTOMATION
Campus Footscray Park
Prerequisite(s) RMA1002 Maths 1B, VEC1002 Computer Lab 1B.
Required Reading Handout Notes.

Class Contact 30 hrs of contact comprising 15 hrs of lectures/tutorials and 15hrs of Laboratory.
Assessment Examination 40%, Tests 10%, Laboratory Assignments 50%.

VEA4500 ROBUST CONTROL SYSTEMS
Campus Footscray Park
Prerequisite(s) VEA3000 Control Systems A.
Internal Model Control perfect control. Internal Model Control and IMC filters. Performance and robustness trade-off via loop-shaping. Introduction to the co-prime factorization approach Co-prime factorization of transfer functions. The Q-parameterization of all stabilizing controllers. Model reference design and frequency weighting functions.
Required Reading Robust Control Systems Subject Notes, Victoria University.
Class Contact 30 hours per semester comprising 24 hours of lectures/tutorial and 6 hours of laboratory.
Assessment Laboratory assessment (including a small design project) 30%; End of semester, open book examination 70%.

VEA4600 SYSTEM IDENTIFICATION FOR CONTROL
Campus Footscray Park
Prerequisite(s) VEA3000 Control Systems A.
Required Reading System Identification for Control Subject Notes, Victoria University.
Class Contact 30 hours per semester comprising 18 hours of lectures/tutorial and 12 hours of laboratory.
Assessment Laboratory assessment 50%; End of semester, open book examination 50%.

VEB1001 PBL & ENGINEERING PRACTICE 1A
Campus Footscray Park
Prerequisite(s) Year 12 mathematics or its equivalent.
Content This is a practical, PBL mode, subject in which students work in teams to solve a number of problems specifically designed to integrate with the learning and content from VEF1001 and VEF
1003. Teams of students will have an Electrical Engineering staff member as a ‘coach or mentor’ whilst working on these problems. ‘Specialist’ staff from the VEF 1001 and VEF 1003 subjects will be available to assist students with technical aspects of the problems. Staff members from the Faculty of Arts will be available on a weekly basis to assist with the development of communications skills. Staff members from the Faculty of Business and Law, the Teaching & Learning Centre and the School of Architectural, Civil & Mechanical Engineering will be available to provide workshops to assist students with the development of generic skills.

**Required Reading** The use of a prescribed textbook does not conform to the philosophy inherent in PBL.

**Recommended Reading** To be provided upon commencement of subject.

**Class Contact** 120 hours of class contact per semester.

**Assessment** Students will be assessed in this subject on the basis of a portfolio, in which they are required to demonstrate the attainment of learning outcomes using:- peer evaluation and assessment, weekly team/client meetings, a reflective journal, reflective essays, expositions, audio/visual project presentations and written project reports.

### VEB1002 PBL & ENGINEERING PRACTICE 1B

**Campus** Footscray Park

**Prerequisite(s)** VEB 1001 PBL & Engineering Practice 1A, or equivalent.

**Content** This is a practical, PBL mode, subject in which students work in teams to solve a number of problems specifically designed to integrate with the learning and content from VEF 1002 and VEF 1004. Teams of students will have an Electrical Engineering staff member as a ‘coach or mentor’ whilst working on these problems. ‘Specialist’ staff from the VEF 1002 and VEF 1004 subjects will be available to assist students with technical aspects of the problems. Staff members from the Faculty of Arts will be available on a weekly basis to assist with the development of communications skills. Staff members from the Faculty of Business and Law, the Teaching & Learning Centre and the School of Architectural, Civil & Mechanical Engineering will be available to provide workshops to assist students with the development of generic skills.

**Required Reading** The use of a prescribed textbook does not conform to the philosophy inherent in PBL.

**Recommended Reading** To be provided upon commencement of subject.

**Class Contact** 120 hours of class contact per semester.

**Assessment** Students will be assessed in this subject on the basis of a portfolio, in which they are required to demonstrate the attainment of learning outcomes using:- peer evaluation and assessment, weekly team/client meetings, a reflective journal, reflective essays, expositions, audio/visual project presentations and written project reports.

### VEC1001 COMPUTER ENGINEERING 1A

**Campus** Footscray Park

**Prerequisite(s)** Nil

**Content** Number Systems and Codes: Base conversions, representation of data in the binary and hexadecimal systems, binary arithmetic, signed and unsigned values. Computer Programming: An overview of a typical computer system. The program creation process; editing, compiling and debugging. Data types, correct choice of type and their range. The use of variable, assignment, arithmetic and logical operations. Flow control using loops; if, while and switch statements. An Introduction to arrays.


**Class Contact** 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory performance 20%; End of semester examination 60%.

### VEC1002 COMPUTER ENGINEERING 1B

**Campus** Footscray Park

**Prerequisite(s)** VEC1001 Computer Engineering 1A.

**Content** Computer Programming: Functions and function parameters. Text files and text strings. An introduction to data structures and classes.


**Class Contact** 60 hours per semester comprising 48 hours of lectures/torial and 12 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory performance 20%; End of semester examination 60%.

### VEC2001 COMPUTER ENGINEERING 2A

**Campus** Footscray Park

**Prerequisite(s)** VEC1002 Computer Engineering 1B.


**Class Contact** 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory performance 20%; End of semester examination 60%.
VED2002 ENGINEERING DESIGN AND PROFESSIONAL PRACTICE 2

Campus Footscray Park
Prerequisite(s) VEH2001 Electronic Systems 2A, VEC2001 Computer Eng. 2A.
Content CAD packages, domestic and industrial installation wiring practice (conforming to AS3000), design techniques, documentation, construction, and evaluation of electronics hardware.
Professional engineering practice is considered under the headings of Engineering Planning and Design, and Self Management, it constitutes 25% of the subject content. Two projects (one group project) will be undertaken by each student requiring the meeting of specifications, PCB fabrication, electronic hardware assembly and the production of comprehensive reports.

Required Reading
Recommended Reading

Class Contact 60 hours per semester comprising of 30 hours of lectures/tutorials and 30 hours of laboratory.
Assessment Class tests and assignments conducted throughout the semester 30%, laboratory performance and project designs 60%, Project report writing 10%.

VED3001 ENGINEERING DESIGN & PROJECTS 3A

Campus Footscray Park
Prerequisite(s) Completed VED3001 Engineering Design & Projects 3A.
Content (a) An individual design task based on a supplied specification, including a feasibility study, selection of the best design approach, design simulation and revision, circuit board design, electronics construction and housing, initial testing and troubleshooting, and final performance measurement using laboratory test equipment.
(b) Reporting on the project using oral progress talks, a final oral presentation, and a formal written report.
(c) Lecture material covering revision of probability theory, leading to an introduction to the statistical theory of reliability.

Required Reading
Recommended Reading

Class Contact 48 hours per semester, consisting of 36 hours of labs, and 12 hours of lectures. Students are expected to spend additional non-class time on project work.
Assessment Progress talks 5%, final presentation talk 5%, project report 10%, project performance and quality 40%, assignment, exam 40%. Completion of the project, and a pass in both the project and theory sections of the subject is required.

VED4001 ENGINEERING DESIGN & PROJECTS 4A

Campus Footscray Park
Prerequisite(s) Completed VED3001 Engineering Design & Projects 3A.
Content The subject consolidates engineering design experience by requiring each student to undertake an individual engineering design project, selected from a list of projects on offer. Projects are sourced from industry and academia, and span both semesters. In this subject, progress to a viable halfway stage is expected. Each student is supervised by a staff member expert in the area of the project. Oral presentation skills, and report writing ability are further developed from the level attained in third year.

The theory component covers the philosophy of system design, and designing for variability, emphasising the gulf between designing a working prototype, and designing for production. Worst case and design engineering, related to the statistical theory of reliability.

Recommended Reading
VEE3000 ELECTRIC MACHINES AND ENERGY SYSTEMS A
Campus Footscray Park
Prerequisite(s) 2nd year subject VEG2002 Introduction to Engineering Systems.
Class Contact 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.
Assessment Mid semester test 20%; Laboratory performance/written report 20%; End of semester examination 60% (close book, three hours).

VEE4000 POWER ELECTRONICS AND DRIVES B
Campus Footscray Park
Prerequisite(s) 2nd year subject VEG2002 Introduction to Engineering Systems 2B.
Class Contact 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.
Assessment Mid semester test 20%; Laboratory performance/written report 20%; End of semester examination 60% (close book, three hours).

VEE4100 ELECTRIC ENERGY SYSTEMS ANALYSIS AND OPERATION
Campus Footscray Park
Prerequisite(s) VEE3000 Electric Machines & Energy Systems A.
Content Load flow analysis techniques, Gauss Siedel and Newton Raphson methods, uses of load flow analysis, cases studies. Short circuit analysis using Zbus, case studies. Steady state and transient stability analysis, case studies. Load-frequency control and power system operation. Electric energy system interconnection. High voltage DC systems and their application in electric energy transmission. FACTS (power electronics) technology for electric power transmission systems.
VEE4200 ELECTRIC ENERGY SYSTEMS PROTECTION

Campus Footscray Park

Prerequisite(s) VEE3000 Electric Machines and Energy Systems A.

Content This subject covers the planning, design and operation of electrical protection systems for the generation, transmission and distribution of electrical energy: planning, design standards and performance requirements; principles and types of protection systems (overcurrent, impedance, differential, backup, fuses); application to generators, motors, transmission lines, transformers, busbars, and distribution; instrument transformer steady state and transient behaviour; electrical studies for planning and design of protection systems; power system communications for protection application.

Required Reading Lecture notes provided.


Class Contact 36 hours per semester comprising 24 hours of lectures/tutorial and 12 hours of laboratory.

Assessment Assignment and Laboratory Exercises 40%; End of semester examination 60%; A pass in each component of assessment is required for a subject pass.

VEE4300 ELECTRIC ENERGY TRANSMISSION AND DISTRIBUTION

Campus Footscray Park

Prerequisite(s) VEE3000 Electric Machines and Energy Systems A.

Content This subject covers the planning, design and operation of electrical energy transmission and distribution networks.
- Planning, design standards and performance requirements.
- Voltage control.
- Power quality and reliability.
- Overvoltage protection.
- Earthing and safety.
- Embedded generation.
- Power electronic systems for performance improvement.

Required Reading Lecture notes provided.


Class Contact 36 hours per semester comprising 24 hours of lectures/tutorial and 12 hours of laboratory.

Assessment Assignment and Laboratory Exercises 40%; End of semester examination 60%; A pass in each component of assessment is required for a subject pass.

VEE4400 HIGH VOLTAGE ENGINEERING

Campus Footscray Park

Prerequisite(s) VEE3000 Electric Machines & Energy Systems A.

Content Electrical insulation properties an characteristics, insulator selection, insulation co-ordination in electric energy networks, sources of overvoltages, lightning impact on transmission and distribution networks, surge propagation theory, circuit interruption theory and circuit breaker operation.

Required Reading Lecture notes provided.


Class Contact 36 hours per semester comprising 24 hours of lectures/tutorial and 12 hours of laboratory.

Assessment Assignment and Laboratory Exercises 40%; End of semester examination 60%; A pass in each component of assessment is required for a subject pass.

VEF1001 ENABLING SCIENCES 1A

Campus Footscray Park

Prerequisite(s) Year 12 mathematics or its equivalent.

Content Basic algebra, including index, log laws, indicial and log equations, algebraic expansions; Functions, straight line, parabola, circle etc. Mad function. Domain, range, inverse functions; Trig. Functions and their graphs, period amplitude, degrees radians. Basic trig identities, Inverse Trig functions. Converting aCosx+bSinx to single Sin, Cosine terms; Limits, continuity, differentiation, rules, higher derivatives, Implicit differentiation. Tangents and Normals; Parametric differentiation, derivatives of logs and exponentials. Rates of change, maximum and minimum problems. Trig and inverse trig derivatives, Logarithmic differentiation; Introduction to integration. Fundamental theorem of Integral Calculus. Substitution rule. Areas, Mean values, Root mean square; Methods of integration, partial fractions, simple integration by parts; Introduction to differential equations, separation of variables, population growth, air resistance; Complex numbers. Physical Units and Dimensions: Physical quantities, system of units and standards, dimensions, unit conversion, significant figures. Electrical Devices: Fundamentals of electric circuits, series and parallel circuits, circuit analysis, DC and AC circuits, operation, performance characteristics and selection of motors and generators. Solid State Physics: Bonding in molecules, bonding in solids, free electron model of metals, band theory in solids, semiconductors and doping, semiconductor diodes, transistors. Semiconductor Devices: Introduction to applications of semiconductor devices, diodes and I–V characteristics, rectifying circuits, bridge rectifiers, smoothing circuits, introduction to operational amplifiers.


Class Contact 60 hours of lectures/tutorials per semester.

Assessment There will be class tests, worth 30% and an end of semester examination worth 70%.
**VEF1002 ENABLING SCIENCES 1B**

**Campus** Footscray Park

**Prerequisite(s)** VEF 1001 Enabling Sciences 1A.

**Content** Descriptive statistics, data, histograms etc. Describing data, mean, median, mode, quartiles, measures of dispersion; Introduction to probability, sample space, mutually exclusive and independent events. Intro to PDFs and intro. to Normal distribution; Normal distribution, mean of n variate values, 3,2,1 sigma confidence limits. Binomial, Poisson distributions; Exponential, Hypergeometric distr. Normal approx. to Binomial and Poisson. Sample mean. Central limit theorem; Determinants, matrices, Cramer’s rule, inversion; Solution of systems of algebraic equations. Row operation, Gaussian elimination, echelon form, ranks; Newton Raphson, numerical integration. Midpoint, Trapezoidal and Simpson’s rules; Introduction to series and some convergence tests; Simple power series and the Maclaurin series; Partial differentiation, algebraic, trig, exp, and log functions. Rules; Partial differentiation, conditions for max/min. Simple problems; Intro to second order constant coefficient, homogeneous D.s. Three types of solutions via conditions for max/min. Simple problems; Intro to second order constant coefficient, homogeneous D.s. Three types of solutions via conditions for max/min. Simple problems; Intro to second order

**Assessment** There will be class tests, worth 30% and an end of semester examination worth 70%.

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**VEF1003 ELECTRICAL FUNDAMENTALS 1A**

**Campus** Footscray Park

**Prerequisite(s)** Year 12 mathematics or its equivalent.


**Recommended Reading** Ives, R Electrical and Electronic Engineering, Victoria University.

**Class Contact** 60 hours of lectures/tutorials per semester.

**Assessment** There will be class tests, worth 30% and an end of semester examination worth 70%.

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**VEF1004 ELECTRICAL FUNDAMENTALS 1B**

**Campus** Footscray Park

**Prerequisite(s)** VEF 1003 Electrical Fundamentals 1A or equivalent.


**Recommended Reading** Ives, R Electrical and Electronic Engineering, Victoria University.

**Class Contact** 60 hours of lectures/tutorials per semester.

**Assessment** There will be class tests, worth 30% and an end of semester examination worth 70%.


**Class Contact** 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment** Mid semester test, 20%; Laboratory performance/written report, 20%; End of semester examination, 60% [close book, three hours].

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**VEG4001 PROFESSIONAL ENGINEERING PRACTICE 4A**

**Campus** Footscray Park

**Prerequisite(s)** Normally, successful completion of the first two years of an appropriate degree.

**Content** Engineering Practice (A, B, E): Developing a professional image; Integration of engineering with other professional input*; Development of innovative engineering solutions*; Identification of constraints on potential engineering solutions*; Engineering Planning and Design (A, B, E): Interpreting and scoping design requirements*; Preparing concept proposal and seeking advice on latest technology*; Implementing planning and design process*; Reviewing design to achieve acceptance*; Reviewing design outcomes in operation; Preparing and maintaining documentation during the design process*; Developing written and oral skills to enhance the quality of documentation and presentation*. Engineering Business Management (B, E): Contributing to engineering business solutions; Developing client relationships; Managing the implementation of engineering plan within a business; Managing resources; Managing people. Managing Business Information (B, E): Engineering Project management; Interpreting and scoping project requirements; Developing project integration; Managing quality, safety and risks; Managing costs and procurement; Managing time and progress; Finalizing Projects. Preparation for Employment (A, B): Preparing a job application; Constructing a C.V.; Preparing for Interviews; Interview Techniques; Presentation skills; Employees rights and obligations.

*These topics will be closely linked to the student experiences in VED4001/2 Engineering Design and Projects 4A/4B


**Class Contact** The equivalent of 60 hours per semester. It is expected that class contact in this subject will be flexible with different content areas utilising different attendance regimes.

**Assessment** Two 15 page* assignments – totalling 50%; One 30-minute seminar presentation – 20%; Completion of student portfolio and University Capstone Task – 20%; Construction of a resume, response to a position application and mock interview. – 10%.

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**VEG4002 PROFESSIONAL ENGINEERING PRACTICE 4B**

**Campus** Footscray Park

**Prerequisite(s)** Normally, successful completion Professional Engineering 4A or equivalent.

**Content** Engineering Operations (A, B, E): Planning operations and systems; Managing the processes within the operation/systems; Managing the assets within the operation/systems; Managing people within the operation/systems; Measuring and documenting engineering operation/systems*; Developing written and oral skills to enhance the quality of documentation and presentation*.


**Class Contact** The equivalent of 60 hours per semester. It is expected that class contact in this subject will be flexible with different content areas utilising different attendance regimes.

**Assessment** Three 10 page* assignments – totalling 60%; One 20-minute seminar presentation – 20%; Construction of a resume, response to a position application and mock interview. – 20%.

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**VEG4100 DIGITAL SIGNAL PROCESSING A**

**Campus** Footscray Park

**Prerequisite(s)** VEL2002 Linear Systems and Mathematics 2B

spectra, zero padding. Cyclic convolutions and its application in filter realization.

**Required Reading** Digital Signal Processing 1 Subject Notes, Victoria University.


**Class Contact** 30 hours per semester comprising 24 hours of lectures/tutorial and 6 hours of laboratory.

**Assessment** Laboratory assessment 30%; End of semester, open book examination 70%.

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**VEH2001 ELECTRONIC SYSTEMS 2A**

**Campus** Footscray Park

**Prerequisite(s)** VEF1002 Enabling Sciences 1B and VEF1004 Electrical Fundamentals.

**Content** Analog Systems: PN diodes, electrical characteristics, application in rectification, clamping and limiting. Zener diodes. Bipolar transistors, characteristics, small signal model, CE, CC and CB configurations, analysis and design. MOSFET devices, characteristics, configurations and use in amplifier design. Voltage regulators, definition of types, performance requirements, design of simple Zener type, series and shunt types. Digital Systems: Data path elements including encoders, decoders, comparators, multiplexers, demultiplexers, multi-mode synchronous counters, registers, shift-registers, arithmetic circuits and ROMs. Applications of data path elements. Data path element function, description in VHDL and synthesis onto programmable logic devices.


**Class Contact** 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory performance 20%; End of semester examination 60%.

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**VEH2002 ELECTRONIC SYSTEMS 2B**

**Campus** Footscray Park

**Prerequisite(s)** VEH2001 Electronic Systems 2A.


**Class Contact** 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory performance 20%; End of semester examination 60%.

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**VEH3000 COMPUTER AND DIGITAL DESIGN A**

**Campus** Footscray Park

**Prerequisite(s)** VEC2001 Computer Engineering 2A and VEH2002 Electronic Systems 2B.


**Class Contact** 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory performance 20%; End of semester examination 60%.

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**VEH4000 COMPUTER AND DIGITAL DESIGN B**

**Campus** Footscray Park

**Prerequisite(s)** VEH3000 Computer and Digital Design A.


**Class Contact** 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory performance 20%; End of semester examination 60%.

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**VEH4300 SYSTEMS ON A PROGRAMMABLE DEVICE**

**Campus** Footscray Park

**Prerequisite(s)** VEH4000 Computer and Digital Design B.

**Content** Commercial ‘intellectual property’ building blocks including: CPUs, UARTS, I/O devices, timers, and special function
modules. Incorporating commercial blocks with user-created (VHDL) blocks. The software development process and tools for ‘system on a chip’ applications. In-circuit debugging and testing. Use of static RAM type FPGAs in manufactured products, configuration device considerations. Conversion of FPGA prototypes to full custom, mass produced parts.

**Required Reading**

**Recommended Reading**

**Class Contact** 30 hours per semester comprising 10 hours of lectures/tutorial and 20 hours of laboratory.

**Assessment** Laboratory based, design build and test activities 100%.

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**VEL1001 CIRCUIT THEORY AND ELECTRONICS 1A**

**Campus** Footscray Park

**Prerequisite(s)** Nil.

**Content** Communication/Information Skills: Instruction and laboratory report writing. Oral Demonstration.


**Required Reading** Handbook of Communication Skills for First Year Students in the Faculty of Health, Engineering and Science, Faculty of Arts, Victoria University; Ives, R Introduction to Electrical and Electronic Engineering, Victoria University.

**Class Contact** 60 hours per semester comprising 36 hours of lectures/tutorial and 24 hours of laboratory/workshops.

**Assessment** Laboratory Report/Oral Demonstration 20%; Mid-semester test 10%; Laboratory performance 10%; End of semester, open book examination 60%.

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**VEL1002 CIRCUIT THEORY AND ELECTRONICS 2B**

**Campus** Footscray Park

**Prerequisite(s)** VEL1001 Circuit Theory and Electronics 1A.


**Required Reading** Handbook of Communication Skills for First Year Students in the Faculty of Health, Engineering and Science, Faculty of Arts, Victoria University; Ives, R Electrical and Electronic Engineering, Victoria University.

**Class Contact** 60 hours per semester comprising 36 hours of lectures/tutorial and 24 hours of laboratory/workshops.

**Assessment** Laboratory Report/Oral Demonstration 20%; Mid-semester test 10%; Laboratory performance 10%; End of semester, open book examination 60%.

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**VEL2001 LINEAR SYSTEMS AND MATHEMATICS 2A**

**Campus** Footscray Park

**Prerequisite(s)** VEL1002 Circuit Theory and Electronics 1B and RMA1002 Mathematics 1B.


**Required Reading** Linear Systems and Mathematics 2A Subject Notes, Victoria University.


**Class Contact** Mathematics component: 24 hours of lecture/tutorial per semester; Linear Systems component: 24 hours of lecture/tutorial per semester; 12 hours of laboratory exercises per semester.

**Assessment** Mathematics component: Examination 100%; Linear Systems component: Laboratory exercises 10%; Examination 90%. Satisfactory performance in each of the Mathematics and Linear Systems components of is necessary for an overall subject pass.
**VEL2002 LINEAR SYSTEMS AND MATHEMATICS 2B**

**Campus** Footscray Park

**Prerequisite(s)** VEL2001 Linear Systems and Mathematics 2A.


**Required Reading** Linear Systems and Mathematics 2B Subject Notes, Victoria University


**Class Contact** Mathematics component: 24 hours of lecture/tutorial per semester; Linear Systems component: 24 hours of lecture/tutorial per semester; 12 hours of laboratory exercises per semester.

**Assessment** Mathematics component: Examination 100%; Linear Systems component: Laboratory exercises 10%, Examination 90%. Satisfactory performance in each component of assessment is necessary for a subject pass.

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**VEM2012 ELECTRICAL ENGINEERING**

**Campus** Footscray Park

**Prerequisite(s)** REP1002 Engineering Physics 1C.


**Class Contact** 60 hours of lectures, tutorials and laboratory work.

**Assessment** Laboratory report #1, 5%; Laboratory report #2, 5%; Laboratory report #3, 5%; Computer based assignment, 10%; Mid-semester test, 10%; Tutorial presentation, 5%; three hour examination, 60%.

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**VEM3000 EDA TOOLS AND DESIGN METHODOLOGY A**

**Campus** Footscray Park

**Prerequisite(s)** Completed second year.

**Content** EDA design flow environment. Tools integration. Back-end IC design flow: analog artist environment, layout editor, Cadence simulation and verification tools. Front-end IC design flow: design compiler, FPGA compiler, place and route tools. Embedded systems design flow and development tools.


**Class Contact** 5 hours per week for one semester, comprising of two hours lecture and three hours of laboratory work.

**Assessment** Laboratory Work: 70%; Assignment: 30%.

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**VEM4000 INTEGRATED CIRCUIT DESIGN B**

**Campus** Footscray Park

**Prerequisite(s** VEM3000 – EDA Tools and Design Methodology

**Content** Introduction to VLSI Circuits and Systems. Introduction to silicon fabrication process. Design Methodology. Basic CMOS integrated circuits design, including overview of MOS technology, complex complementary CMOS design, static and dynamic design techniques. Circuit protection and scaling. Students will develop hands-on experience in design, simulation, verification and implementation using industry standard EDA tools.


**Class Contact** 5 hours per week for one semester, comprising of two hour lecture and three hours of laboratory and project work.
VEM4100 ANALOG AND MIXED SIGNAL DESIGN

Campus: Footscray Park
Prerequisite(s): Analog in Second Year and VEM3000 EDA Tools and Design Methodologies.
Content: The design of CMOS analog and mixed-signal integrated circuits is covered. Design concepts of high speed low power amplifiers, filters, sample and hold circuits, comparators, digital to analog and analog to digital converters are fully analysed. Students will develop hands-on experience in design, simulation, verification and implementation using industry standard EDA tools.
Class Contact: 2.5 hours per week for one semester, comprising of one hour lecture and 1.5 hours of laboratory and project work.
Assessment: Laboratory exercises: 20%; Project: 20%; Final Examination: 60%.

VEM4200 ASIC DESIGN

Campus: Footscray Park
Prerequisite(s): Completed VEM3000 EDA Tools and Design Methodologies.
Content: Application Specific Integrated Circuits (ASIC) introduction, ASIC VLSI design cycle, fundamental approaches and design aspects, Full and Semi Custom design methodology, IBM ASIC design flow – place & route, ESD failure, and ESD protection.
Class Contact: 2.5 hours per week for one semester, comprising of one hour lecture and 1.5 hours of laboratory and project work.
Assessment: Assignment: 20%; Project: 20%; Exam: 60%.

VEM4300 EMBEDDED SYSTEMS DESIGN

Campus: Footscray Park
Prerequisite(s): Completed Second Year.
Content: Overview of embedded systems. Embedded system design cycle and system modelling. Embedded system hardware and software. Real-time embedded system. Embedded system specification and verification. Hardware/software co-design, partitioning and tradeoffs. Embedded development tools. Analysis and design methods using graphical notations eg. UML, implementation considerations, testing strategies and construction of test cases, software engineering environments and CASE tools. Embedded system design and verification.

VEM4400 HIGH LEVEL SYNTHESIS – VERILOG

Campus: Footscray Park
Prerequisite(s): Completed Second Year.
Class Contact: 2.5 hours per week for one semester, comprising of one hour lecture and 1.5 hours of laboratory and project work.
Assessment: Laboratory Exercises: 30%; Assignment: 10%; Exam: 60%.

VEM4500 VLSI DESIGN

Campus: Footscray Park
Prerequisite(s): Completed VEM4000 Integrated Circuit Design.
Content: Overview of MOS and sub-micron technology, scaling and signal integrity, IC design techniques. CMOS cell design: device-level design constraints, gate design, pass transistor circuits, sequential circuits, mask level design. Layout considerations, design rules and mask level design. Circuit optimisation techniques. Timing issues in VLSI circuit design. Design of VLSI system sub-systems: Arithmetic and logic processing elements, adders, counters, I/Os, buffers, data path design and layout, etc. Chip floor planning. Design tradeoffs-cost, power and performance.
Class Contact: 2.5 hours per week for one semester, comprising of one hour lecture and 1.5 hours of laboratory and project work.
Assessment: Laboratory exercises: 20%; Project: 20%; Final Examination: 60%.

VEP3000 PHOTONICS A

Campus: Footscray Park
Prerequisite(s): Completion of 2nd year of appropriate degree.

Class Contact: 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

Assessment: Assignments conducted throughout the semester 20%; Laboratory performance 20%; End of semester examination 60%.

**VES3000 DATA STRUCTURES AND ALGORITHM ANALYSIS A**

Campus: Footscray Park

Prerequisite(s): VEP3000 Photonics A.

Content: Data Abstraction; Storage Classes; Arrays; Linked lists; Iterators; Stacks, Queues, Recursion; Priority Queues; Trees; Heaps; Sorting algorithms; Searching algorithms; Tables; Hashing; File processing.


Class Contact: 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

Assessment: Class tests conducted throughout the semester 20%; Laboratory/team project 20%; End of semester, open book examination 60%.

**VES3000 DATA STRUCTURES AND ALGORITHM ANALYSIS B**

Campus: Footscray Park

Prerequisite(s): Completed Second Year.

Content: Data Abstraction; Storage Structures; Collection Classes; Array; Linked lists; Iterators; Stacks, Queues, Recursion; Priority Queues; Trees; Heaps; Sorting algorithms; Searching algorithms; Tables; Hashing; File processing.


Class Contact: 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

Assessment: Class tests conducted throughout the semester 20%; Laboratory/team project 20%; End of semester, open book examination 60%.

**VES4000 PROGRAMMING TOOLS AND COMPILERS B**

Campus: Footscray Park

Prerequisite(s): Completed Second Year.


A team project is undertaken to reinforce the principles taught in lectures.


Class Contact: 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

Assessment: Class tests conducted throughout the semester 20%; Laboratory/team project 20%; End of semester, open book examination 60%.

**VES4100 COMPUTER SYSTEMS**

Campus: Footscray Park

Prerequisite(s): Completed Second Year.


Class Contact: 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

Assessment: Class tests conducted throughout the semester 20%; Laboratory/team project 20%; End of semester, open book examination 60%.

**VES4200 NETWORK SOFTWARE AND MANAGEMENT**

Campus: Footscray Park

Prerequisite(s): Completed Second Year.


Data Communications, Computer Networks and Open Systems, 4th edn, Addison Wesley.

**Class Contact** 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory/team project 20%; End of semester, open book examination 60%.

**VET4300 SOFTWARE ENGINEERING**

**Campus** Footscray Park

**Prerequisite(s)** Completed Second Year.

**Content** Introduction to the engineering of quality software. The software development lifecycle model. System analysis, software requirements definition, specification, elicitation, analysis and modelling. Process specifications and data dictionary production. Software design process, principles and production. User interface design, information presentation and evaluation. The testing process, planning and strategies. Comparison of analysis and design techniques. Software reliability and reuse. Verification and validation. CASE tools and software engineering environments. Software project planning and estimating. A team project is undertaken to reinforce the principles taught in lectures.

**Introduction to requirements**


**Class Contact** 60 hours per semester comprising 48 hours of lectures/tutorial and 12 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory/team project 20%; End of semester, open book examination 60%.

**VET3000 TELECOMMUNICATION A**

**Campus** Footscray Park

**Prerequisite(s)** VETG2002 Introduction to Engineering Systems.


**Class Contact** 60 hours per semester comprising 48 hours of lecture/tutorial and 12 hours of laboratory works.

**Assessment** Laboratory reports, assignments and class test conducted throughout the semester 30%; End of semester, closed book examination 70%.

**VET4000 TELECOMMUNICATION B**

**Campus** Footscray Park

**Prerequisite(s)** VET3000 Telecommunication A.


**Assessment** Data network topology: Point-to-point and Multi-point networks, Network access control methods: ALOHA, Slotted ALOHA, CSMA, Token ring, Token bus, FDDI, Wireless LAN, X25, Routing algorithms, ATM switches, Delay models in data networks., M/M/1 queue, Data network design principles.


**Class Contact** 60 hours per semester comprising 48 hours of lecture/tutorial and 12 hours of laboratory works.

**Assessment** Laboratory reports, assignments and class test conducted throughout the semester 30%; End of semester, closed book examination 70%.

**VET4100 COMPUTER COMMUNICATIONS 1**

**Campus** Footscray Park

**Prerequisite(s)** Nil.

**Content** Layered structure of computer communication protocols. ISO OSI 7 layer model and TCP/IP protocol suit. LANs. Ethernet. WANs. PPP. X.25. Frame relay. ATM. Network connecting devices. Repeaters, hubs, bridges, routers, and gateways. IP and IP addressing. Subnetting and super networking. Routing protocols. ARP and RARP. ICMP and IGMP. Transport layer protocols. UDP and TCP. Flow control, error control, and congestion control in TCP.


**Class Contact** 30 hours per semester comprising 24 hours of lectures/tutorial and 6 hours of laboratory.

**Assessment** Class tests conducted throughout the semester 20%; Laboratory performance 20%; End of semester, open book examination 60%.

**VET4200 COMPUTER COMMUNICATIONS 2**

**Campus** Footscray Park

**Prerequisite(s)** VET4100 Computer Communications 1.

**Content** Routing protocols. RIP, OSPF, and BGP. Multicast routing. Application layer. Concurrent clients and servers. BOOTP and DHCP. Domain name system. Telnet and Rlogin. Network virtual terminal. Socket interface. FTP and TFTP. SMTP. SNMP. HTTP. WWW.


Class Contact 30 hours per semester comprising 24 hours of lectures/tutorial and 6 hours of laboratory.
Assessment Class tests conducted throughout the semester 20%; Laboratory performance 20%; End of semester, open book examination 60%.

VET4300 DIGITAL COMMUNICATIONS
Campus Footscray Park
Prerequisite(s) VET3000 Telecommunication A.
Class Contact 36 hours per semester comprising 24 hours of lecture/tutorial and 12 hours of laboratory works.
Assessment Assignments and class test conducted throughout the semester 30%; End of semester, closed book examination 70%.

VET4400 DIGITAL SIGNAL PROCESSING IN TELECOMMUNICATIONS 2
Campus Footscray Park
Prerequisite(s) VEG4100 Digital Signal Processing A.
Class Contact 36 hours per semester comprising 24 hours of lecture/tutorial and 12 hours of laboratory works.
Assessment Assignments and class test conducted throughout the semester 30%; End of semester, closed book examination 70%.

VET4500 SATELLITE COMMUNICATIONS
Campus Footscray Park
Prerequisite(s) VET3000 Telecommunication A.
Content Satellite orbits: Kelper's laws, Orbital elements, NASA two-orbit orbital element specifications, Low-earth-orbit (LEO), Geostationary orbit, Perifocal co-orinate, Geocentric-equatorial co-orinate, Topocentric-horizon co-orinate systems, Subsatellite point.
Satellite communication engineering: Intelsat, Direct broadcast system (DBS), Frequency allocation, Antenna look-angle and polarization angle determination, Rain attenuation, Transponders, EIRP, Saturation flux, System noise calculation, C/N, C/No, Fade margins, Link budget for satellite communication, Single access, Multi-access and Demand assigned access techniques, FDMA, TDMA, CDMA. System performance.
Class Contact 36 hours per semester comprising 24 hours of lecture/tutorial and 12 hours of laboratory works.
Assessment Assignments and class test conducted throughout the semester 30%; End of semester, closed book examination 70%.

VET4600 WIRELESS COMMUNICATIONS
Campus Footscray Park
Prerequisite(s) VET3000 Telecommunication A.
Class Contact 36 hours per semester comprising 24 hours of lecture/tutorial and 12 hours of laboratory works.
Assessment Assignments and class test conducted throughout the semester 30%; End of semester, closed book examination 70%.

VET4700 COMMUNICATION SYSTEM AND NETWORK DESIGN
Campus Footscray Park
Prerequisite(s) VEG2002 Introduction to Engineering Systems 2.
Content Design methodologies: Project definition, scoping, feasibility study, market analysis, business analysis, requirement analysis, system specifications, preliminary design, choice of technologies, detailed design, testing and commissioning, maintenance considerations.
Design practice: Under guidance carry out a feasibility study on design of a typical communication system/network.
Design Standards: Introduction to various international and national design standards
Presentation: Oral and written presentation of the study and design in a manner expected in industry.
Class Contact 30 hours per semester comprising 15 hours of lectures/tutorial and 12 hours of practical design workshop.
Assessment Design assignments: 80%, Mid-semester test: 20%.
VET4800 MULTIMEDIA AND IP-BASED NETWORKS

Campus Footscray Park

Prerequisite(s) VEG2002 Introduction to Engineering Systems 2.


Class Contact 30 hours per semester comprising 24 hours of lectures/tutorial and 6 hours of practical work.

Assessment Semester Examination 70%; Mid-semester test: 20%, Assignment 10%.
COURSES OFFERED
The Faculty of Health, Engineering and Science offers postgraduate courses leading to the award of:
- Master's Qualifying Program;
- Master of Engineering and Science; and
- Doctor of Engineering Science.

MASTER'S QUALIFYING PROGRAM
Course Code: ENMQ

COURSE OBJECTIVES
The Faculty of Health, Engineering and Science Masters Qualifying Program is designed to facilitate entry to coursework masters degrees for a wide range of students who lack the formal qualifications or experience for direct entry into the master by coursework degree of their choice. Note that the program:
- Does not lead to a formal qualification of the faculty;
- Is suitable for a wide range of students with varying entry qualifications;
- Is designed to prepare students for the full range of masters degrees by coursework available in the faculty;
- Has flexible entry points;
- Will be individually designed for each student;
- Can have varying lengths;
- Satisfactory completion of the program will enable a student to enter directly into the masters course for which the qualifying program has been designed.

ADMISSION REQUIREMENTS
A wide range of selection criteria will be applied to this program to cater for the range of prior qualifications and experiences. For International students a minimum IELTS score of 6.5 is required for entry into the program.
In exceptional cases a student may be considered for admission with an IELTS score of 6.0. In these cases the program advisor will take special care to ensure that the student is meeting the English language demands of the program and, if necessary, arrange for special assistance from appropriate sources within the university.

COURSE STRUCTURE
As indicated above, the Masters Qualifying Program is individually structured for each student undertaking the program. Upon acceptance into the program each student will be assigned a program advisor who will, with the student, work out in which areas the student requires further study and develop a program to meet those needs. This will generally comprise a selection of undergraduate and/or postgraduate subjects in the general area of their preferred Masters degree but may also include English language and research method instruction.

The length of the program will vary from student to student and may take one, two or three semesters depending on the 'gap' between the student's prior experiences and qualifications and the masters course they are seeking to enter.

MASTER OF ENGINEERING AND SCIENCE,
AND DOCTOR OF ENGINEERING SCIENCE
Course Code: EPES

COURSE OBJECTIVES
Candidates who elect to take the Masters qualification will develop a detailed understanding of current trends and approaches to practical problem solving in their professional area. Successful completion of the course will equip them with the ability to engage in directed research projects in their industry and to continue to develop appropriate skills in this area.
Candidates who proceed to the Doctoral level will develop the ability to apply the work covered at the Masters level to the practical solution of specific problems of industrial significance. Successful completion of the course will give them the skills and experience to act as independent researchers or group leaders for investigations or practical importance in their professional area over the period of their professional life.

COURSE STRUCTURE

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261
ASSessment
Coursework component
Assessment will be a mixture of examination, minor project, seminar presentation and peer assessment appropriate to the learning objective of each subject and the course in general. The subject presenter will be responsible for the mode of assessment for individual subjects. Assessments will be moderated by an external panel to ensure that consistently high levels of attainment are achieved by all successful students.

The coursework component will include exercises and required work embedded in the coursework component that will allow potential Masters students to be assessed for possible Doctoral level.

Research component
Assessment will be by means of professionally presented thesis or industry report. The final thesis or report will be examined by independent examiners external to the University and the candidate’s industry. Examiners will be asked to comment on students ability to:

(i) articulate a problem of significance;
(ii) develop a project design appropriate to the investigation of the problem;
(iii) select an appropriate method or methods to investigate the problem;
(iv) transform the data into a form appropriate for analysis;
(v) analyse the data and draw conclusions consistent with the findings that contribute to the answering of the research question; and
(vi) present the work in such a format that it makes an original and significant contribution to knowledge in the candidate’s field.
CENTRE FOR ENVIRONMENTAL SAFETY AND RISK ENGINEERING

COURSES OFFERED
The Centre for Environmental Safety and Risk Engineering offers postgraduate courses leading to the award of:

- Doctor of Philosophy;
- Master of Engineering (Research);
- Master of Engineering in Building Fire Safety and Risk Engineering (Coursework);
- Graduate Diploma in Building Fire Safety and Risk Engineering;
- Graduate Certificate in Performance-Based Building and Fire Codes.

INTERNATIONAL PROGRAMS
- Master of Engineering in Building Fire Safety and Risk Engineering (Coursework);
- Graduate Diploma in Building Fire Safety and Risk Engineering.

FOCUS
The Centre for Environmental Safety and Risk Engineering was established as the inaugural University Centre in July 1991 to undertake multi-disciplinary research and graduate programs. The mission of the Centre is to provide national and international leadership for the conduct of studies which will lead to the implementation of efficient designs for hazardous infrastructure facilities and to ensure that the impact on people, property and the environment is minimised to acceptable levels.

Example of hazards which are and will be investigated by the Centre include:

- fire in Buildings;
- hazardous industrial complexes: fire, explosion, and release of hazardous substances;
- transport of and storage of hazardous goods.

The work of the Centre in building fire safety and protection systems is internationally recognised.

The Centre undertakes the following multi-disciplinary activities:

- applied research;
- specialist consulting;
- research at PhD and Masters levels;
- Graduate Diploma course;
- Masters by Coursework and Minor Thesis;
- Graduate Certificate course;
- short courses, seminars and workshops.

CURRENT RESEARCH
Research by the Centre into building fire safety and protection is conducted in a number of areas:

- system modelling and risk assessment (core research);
- fire growth and spread/smoke spread;
- response of building subsystems to fire;
- human behaviour in fire;
- building fire safety systems analysis;
- decision-support for emergency management;
- risk communication.

RECENT RESEARCH GRANTS
The Centre for Environmental Safety and Risk Engineering (CESARE), Victoria University, in conjunction with the University of Technology, Sydney, initially received a major Australian Research Grant (1991/93) to construct an Experimental Building – Fire Facility. This grant was supplemented by substantial additional ARC Infrastructure Grants to CESARE to further develop the Facility. These grants were complemented by extensive design, supervision, technical and material input from key organisations involved in the fire safety and protection industry. The value of the original Facility was some $1.5m. In late 2001, the Centre received a $2,000,000 Systemic Infrastructure Initiative Grant from the Federal Government to build a large scale experimental building–fire facility over the top of the existing facility. This is a step in developing the facility into a major national and international focus for research on fire. A further $875,000 was provided by Victoria University and collaborative partners – SSL/CSIRO, CFA, BHPSSteel and OneSteel. This new facility was completed in 2004.

The Centre has been very successful in attracting research funds from various bodies, including competitive Australian Research Council (ARC) Grants. Grants obtained include: ARC Large Grants, ARC Collaborative Research Grant (with BHP and the National Association of Forest Industries, NAFI), ARC Infrastructure Grant, industry grants, contracts and scholarships (for example, from BHP and NAFI), research contracts from the National Fire Laboratory, National Research Council of Canada (on behalf of the Department of National Defence, Canada, and Public Works Canada), research grants from the Defence, Science and Technology Organisation (DSTO), and a research grant from the National Fire Protection Association of the United States (NFPA). The annual research budget for the Centre is some $1million.

In 1999 the Centre obtained an Australian Research Council Research Equipment and Facilities Infrastructure Grant to install a new Fire Research Furnace. The furnace is used to conduct research on the performance of elements of construction under fire conditions. The furnace is located at the Centre’s new laboratory and office complex at the Werribee Campus. A second, larger furnace in a new building (both donated by BHP Billiton) were installed in early 2002. A cone calorimeter has also been installed at the Werribee Campus.

EXPERIMENTAL BUILDING – FIRE FACILITY
An Experimental Building – Fire Facility is used to conduct real fire experiments in realistic prototype buildings. Extensive instrumentation is used to record the growth and spread of fires and the effects of fire in the Facility.

The results from these experiments are used to develop and validate advanced computer models for predicting fire growth and spread in buildings, the response of building subsystems to fire, and human behaviour during fire emergencies.

The $1.5m Facility contains a large versatile building based on a steel frame and composite concrete floor-slab structure, a service core containing stair, life and air handling shafts, together with associated services including sprinklers.

The open structure and high inter-floor space permits fitouts of a wide variety of prototype building occupancies and construction types.
In late 2001, the Centre received a $2 million Systemic Infrastructure Initiative Grant from the Federal Government to build a large scale experimental building–fire facility over the top of the existing facility. This is a step in developing the facility into a major national and international focus for research on fire. This new facility was completed in 2004. A separate building provides storage, office instrumentation and workshop facilities. The Facility is located at the Country Fire Authority Training Wing at Fiskville, some 90km west of Melbourne.

COLLABORATION WITH INDUSTRY
The Centre undertakes collaborative research and development projects with key industry and government organisations, including:
- BHPSteel;
- CSIRO;
- Bluescope;
- Bluescope Lysaght;
- Boral.

For example, the Centre was the major research provider to the Fire Code Reform Centre Ltd (FCRC) that was undertaking a multi-million dollar reform program of Australian building and fire codes. FCRC was established with funding provided by Australian Governments, via the Australian Building Codes Board, and industry. The Centre now provides research direct to the Australian Building Codes Board.

The Centre undertakes collaborative research and development projects, and promotes the practice of fire safety engineering by technology transfer programs via workshops and short courses. The Centre provides a forum where industry and government organisations can interact with the University.

For example, the Centre in conjunction with the Building Control Commission, Victoria introduced a new Graduate Certificate in Performance-Based Building and Fire Codes to support the introduction of the Performance-based Building Code of Australia. In 1999 the BHP Fire and Construction Research Unit, with five staff, relocated to the Werribee Campus and is now part of the Centre for Environmental Safety and Risk Engineering.

RESEARCH DEGREES
Masters by Research and Doctor of Philosophy degree programs are available. A wide variety of challenging research projects can be undertaken, including projects of a multi-disciplinary nature. Entry to these awards is available to applicants who have achieved high honours results in their undergraduate course. Initial enquiries regarding research areas should be directed to the Centre on telephone (03) 9919 8027.

ACADEMIC PROGRESSION GUIDELINES AND UNSATISFACTORY PROGRESS
Normal progress through a course requires a student to complete any defined course year within one year of equivalent full-time enrolment. When all subjects in a course year are passed, a stage grading of ‘year completed’ may be given. Any of the following may be considered to constitute unsatisfactory progress by a student:
- failure in any subject or unit for the second time;
- failure to complete the course within any maximum period defined by University Statute;
- failure to meet a conditional enrolment agreement.

As otherwise defined by University Statute, and subject to being invited to show cause, a student making unsatisfactory progress will normally be recommend for exclusion from the course.

GRADUATE CERTIFICATE IN PERFORMANCE-BASED BUILDING AND FIRE CODES
Course Code: ETQB

COURSE OBJECTIVES
The course aims to enable building surveyors and other allied professions to:
- make professional use of performance-based building codes;
- introduce the concepts and alternative acceptable frameworks for performance-based codes, with particular, but not exclusive, emphasis given to fire safety engineering design;
- provide appropriate knowledge and skills necessary for the assessment and application of performance-based and fire codes;
- develop a professional approach to performance-based codes and a recognition of when to assess designs which are within a persons field of expertise and when to refer designs onto a more appropriately qualified assessor;
- develop an appreciation of the legal, regulatory and design integrity requirements and the need for compliance of the design assumptions throughout the operational life of the building.

ADMISSION REQUIREMENTS
To qualify for admission to the course an applicant must have successfully completed a diploma in Building Surveying or an equivalent qualification and at least two years of relevant professional experience. Candidates with other academic qualifications can be admitted to the course provided they can demonstrate an equivalent combination of additional relevant professional experience and qualification.

A letter of recommendation and an interview may be required. Graduates of the course may be offered advanced standing in the Graduate Diploma in Building Fire Safety and Risk Engineering.

COURSE DURATION
The course is offered on a part-time basis over one year, and is offered in block modules (four blocks of four days, spread throughout the year). Students must complete 60 credit points. The maximum time period in which to complete the course is three years.

COURSE STRUCTURE

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<td>VQB5632</td>
<td>Smoke &amp; Fire Spread, Safety System Design</td>
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ASSESSMENT
Assessment is by a combination of assignments and examination. Distribution of marks among each aspect of assessment is determined individually for each subject.
Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers. Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been met.

GRADUATE DIPLOMA IN BUILDING FIRE SAFETY AND RISK ENGINEERING
Course Code: EGQB

COURSE OBJECTIVES
The course aims to produce professionals who are familiar with fire science and technology fundamentals, who can apply rational engineering principles and techniques to identify cost-effective fire safety system designs for buildings, and will be familiar with the content and application of fire engineering design codes.

ADMISSION REQUIREMENTS
To qualify for admission to the course an applicant must have successfully completed a degree in engineering or a degree in science or building surveying.

A corresponding diploma having equivalent content of the relevant technical subjects will also be considered.

Relevant industrial experience is required.

Applicants must either have previously studied, or demonstrated a sound basic knowledge of the following topics: fluid dynamics, heat transfer, properties of materials and structural behaviour. Bridging subjects may be required to overcome any inadequacies.

A letter of recommendation and an interview may be required.

Provision will be made to enrol a limited number of students in the course who do not fully meet the required admission standards, but who have extensive relevant experience and demonstrated aptitude for high achievement. An interview will be required in this case.

COURSE DURATION
The course is offered on a part-time basis and in block modules over two years. Students must complete 120 credit points. The maximum time period to complete the course is six years.

COURSE STRUCTURE

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<td>VQB5632 Smoke &amp; Fire Spread, Safety System Design</td>
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ASSESSMENT
Assessment is by a combination of written projects, assignments, submissions, laboratory work and oral presentation. Distribution of marks among each aspect of assessment is determined individually for each subject.

Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers. Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.

MASTER OF ENGINEERING IN BUILDING FIRE SAFETY AND RISK ENGINEERING (COURSEWORK)
Course Code: EMQB

The course provides opportunities for professional people to develop advanced technical skills in a specialist discipline; develop their understanding of legislation and management relevant to their employment; develop ability to plan, coordinate and complete complex projects; apply and extend research and reporting skills and gain specialist knowledge of a topic relevant to their employment.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants are expected to have completed a Graduate Diploma in Building Fire Safety and Risk Engineering with honours average.

COURSE DURATION
The course is offered over four years on a part-time basis or its full-time equivalent. Students must complete 192 points. Eight approved subjects of twelve credit points, each from the Graduate Diploma in Building Fire Safety and Risk Engineering, Industrial Experience of forty eight credit points, and a minor thesis/project of forty eight credit points for one semester or twenty four credit points for two semesters.

COURSE STRUCTURE

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Semester Two

VQB5772 Fire Safety System Design 12 39
VQB5782 Fire Spread and Fire Safety System Design Project 12 39

Year 4

VQT6050 Building Fire Research-full-time (over one semester) or 48 156
VQT6060 Building Fire Research-part-time (per semester for two semesters) 24

ASSESSMENT
Assessment is by a combination of written projects, assignments, submissions, laboratory work and oral presentations and by the satisfactory completion of a thesis. Distribution of marks for each aspect of the assessment is determined individually for each subject. Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers. Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.

MASTERS (BY RESEARCH)
Course Code: ERIT, EROT

DOCTOR OF PHILOSOPHY
Course Code: EPHC, EPLC, EPOT

COURSE STRUCTURE

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CENTRE FOR TELECOMMUNICATION AND MICRO-ELECTRONICS

The Centre for Telecommunication and Micro-Electronics was established within the Faculty of Health, Engineering and Science (FoHES) at Victoria University in late 2001. The Centre aims to provide excellence in research and development in telecommunication, micro/nanoelectronics and micro-technologies, particularly through the strong partnerships it has established with Government, industry and research centres both nationally and internationally. The major objective of the Centre is to create technologies that are required for future wireless telecommunication services and micro/nanoelectronic systems. The Centre pride itself in selecting research projects that benefit industry as well as being academically challenging.

AFFILIATIONS
- Australian Telecommunication Co-operative Research Centre;
- Chipskills Project;
- Australian Communications Research Network (ACORN);
- Australian Nanotechnology Network (ANN);

AREAS OF RESEARCH
Mobile Communication and Signal Processing.

SYSTEM CONSIDERATION
- capacity enhancement adaptive (smart) antennas;
- air interface.

PROPAGATION MEASUREMENT AND MODELING
- wideband and ultra wide bank channel sounding;
- multiple input multiple output (MIMO).

ALGORITHM DEVELOPMENT FOR HIGH CAPACITY MODULATION SCHEMES
- OFDM networks and W-CDMA networks;
- MIMO and Space-Time Coding;
- synchronisation, channel estimation.

WIRELESS TECHNOLOGY
- software radio;
- radio terminal design issues;
- base station design issues;
- linearization.

MICRO/NANOELECTRONIC CIRCUITS AND SYSTEMS
- advanced digital design and ASIC;
- analog and mixed signal design;
- algorithms for wireless systems;
- low power and reconfigurable systems;
- RF and RF-MEMS circuits;
- smart sensor nodes and network;
- system-on-a-chip (SOC);
- integrated circuit and systems testing;
- DFT;
- MACH-D Testing, Validation and Characterisation.

COLLABORATIVE LINKS

AUSTRALIAN TELECOMMUNICATION CO-OPERATIVE RESEARCH CENTRE
The Australian Telecommunication Co-operative Research Centre (ATCRC) is a co-operative research centre supported by Commonwealth Government of Australia. It is a research partnership between industry, universities and governments. The ATCRC is focused on developing solutions that deliver ‘anywhere, anytime, anything’ enhanced mobile service access with defined Quality of Service (QoS) across packet networks to support multimedia applications. The research carried out by ATCRC partners are in the following areas:
- applications – multimedia over wireless networks, IPv6 handover;
- networking – AAL type 2 traffic management and switching, routing algorithms for IP;
- wireless – W-CDMA scanner, Multi-element antenna systems;
- media-cell, coding and modulation and multi-user detection;
- enabling technologies: Electromagnetic compatibility, signal in electronic and communication systems.

NATIONAL NETWORKED TELE TEST FACILITY (NNTTF)
National Networked TeleTest Facility (NNTTF) was established in late 2002 as a Major National Research Facility (MNRF) to provide vital equipment to take Australia to the frontier of critically important and expanding fields in micro and nano-electronics research and development. This $15 million facility provides leading edge capabilities addressing the most complex testing and IP validation challenges. The NNTTFs’ charter is to enable start-ups, fabless companies, research centres and integrated circuit manufacturers to access specialised capabilities without making a huge investment in very expensive capital equipment. The test facility is based on Agilent 93000 tester which permits entire MACH-D testing of integrated circuits and systems including System-on-a-Chip. The facility is based at Edith Cowan University (WA) with testing nodes at University of Western Australia (WA), University of Adelaide (SA), Victoria University (Vic), Griffith University (Qld) and Australian Microelectronics Network (NSW).

CHIPSKILLS PROGRAMME
Chipskills is a partnership project between Victoria University, RMIT University, State Government of Victoria and industries to:
- provide educational and research needs of the Micro/Nano-Electronics Industry;
- promote and encourage R&D collaboration between Universities and Industries;
- attract high-tech investments in Victoria;
- encourage the development of Start-ups; and
- support the creation of Centre of Excellence in Microelectronics. Industry standard postgraduate and professional development courses in micro/nanoelectronic engineering are offered as part of the Chipskills project.
INTERNATIONAL COLLABORATION
The Centre is a member of the Heterogeneous Signal Processing Research project, a collaboration with three Swedish Universities. The Centre has links and MoUs with a number of other Universities and Research Centres, namely:
- Institute of ECIT, Queens University of Belfast, UK;
- University College Cork, Ireland;
- Bristol University (UK);
- ACREO and Socware, Sweden;
- British Telecom Research Labs;
- BWRC, University of California at Berkeley;
- National Microelectronics Research Centre, Ireland;
- York University, UK;
- Ericsson AB, Sweden.

TRAINING PROGRAMMES
EDUCATION
An important aspect of the Centre is to provide training in core activity areas. This is done through industrially focused and sponsored Chipskills project, Australian Telecommunication CRC and National Networked Tele Test Facility. The School of Electrical Engineering also provides a number of postgraduate courses to complement Telecommunication and Microelectronics Strategic Research Areas.
These courses are:
- M.Eng. (Microelectronic Engineering) – Chipskills Project;
- M.Eng.Sc. in Computer & Microelectronic Engineering;
- Double Degree: M.Eng. (Microelectronic Engineering)/M.Eng.Sc. in Computer & Microelectronic Engineering;
- M.Eng.Sc. in Telecommunication Engineering;
- M.Eng. research degree in all the areas of the Centre activity;
- PhD research degree in all the areas of the Centre activity.

SCHOLARSHIPS
Centre for Telecommunication and Micro-Electronics often receives funds from Industry and Government sources for applied research. Applications for most Government Scholarship close in October every year. Industry Scholarships are generally available throughout the year, depending on the availability of funds.
Research Students are wanted in the following areas:
- radio system design, capacity modeling and performance enhancement of cellular networks;
- RF Systems circuits, and Antennas. Terminal and BaseStation Architectures. Analog and Digital Electronics, Amplifier Design;
- signal Processing. Application of DSP to radio systems, e.g., Adaptive antenna systems, Equalisation, Modulation etc;
- micro/nanoelectronics, VLSI, System-on-Chip;
- smart sensor nodes and networks;
- low power and reconfigurable system design;
- RF, analog, mixed signal and RF-MEMS circuits and systems;
- DFT, verification, validation, characterisation and MACH-D testing

Applicants are required to have a good honours degree in Electronic or Communications Engineering (or equivalent in qualifications or experience e.g., Applied Maths), good analytical and communications skills, and enthusiasm for radio and signal processing. Australian Postgraduate Awards (APA), International Postgraduate Research Scholarships (IPRS) and Vice Chancellor’s Research Scholarships are due October every year. Scholarships are worth approx. $16,000.
A top-up bonus of $5000 p.a. is offered to successful candidates undertaking approved research projects with the Centre for Telecommunication and Micro-Electronics. Scholarship duration is three years for PhD and two years for MEng. Application forms can be obtained from Victoria University’s Postgraduate Research Unit.

FACILITIES
HARDWARE
The Centre has two RF laboratories and built in screened room facilities. The laboratories are equipped with modern RF and microwave test equipment (RF sources, IQ generator, arbitrary waveform generator, FFT analyzer, spectrum analysers, radio test set and network analysers etc.) providing continuous coverage of all frequencies up to 6GHz. A recently acquired scalar network analyzer extends this range to 50GHz. The Centre has its own fabrication facilities for microwave circuits using PCB and other microwave substrate materials.

MICROELECTRONICS
The infrastructure support in micro/nanoelectronics includes industry standard design and test laboratories for integrated systems. The design facility includes number of laboratories based on high powered Sun Workstations supporting Electronics Design Automation (EDA) tools such as Cadence, Synopsys, Mentor Graphics, Coventorware, ADS, Xilinx, Altera, etc for analog, mixed signal, RF, MEMS, ASIC, advanced digital design and verification. These design facilities are valued at approximately $3 million.
Microelectronic circuits and systems testing is performed through the $1.5 million NNTTF facility.

SOFTWARE
The majority of the Centre’s work is performed on dedicated Workstations and PCs while the University computer is used for large simulations. High level software packages for telecommunications research include OPNET for protocol and network performance analysis, SPW for signal processing and communication applications, MATLAB (with the DSP, control, simulink and other toolboxes) for maths and digital signal processing applications, and a number of other statistical and DSP packages. Packages for Neural and Fuzzy research are also available.

SUPERCOMPACT and ADS for RF and microwave circuit design, simulation, and layout. GAS Station for microwave circuit layout, HSPICE for analog simulation.

For further information and facility booking please visit the website www.ctme.vu.edu.au
FOOD MARKETING RESEARCH UNIT

The Food Marketing Research Unit provides marketing and market-oriented research, education and consultancy services targeted at all segments (producers, processors, re-sellers, and industry stakeholders) of the food value chain. The Unit undertakes projects awarded through nationally competitive grants and through negotiated contracts. It has a large number of clients comprising of government agencies, food processing companies, food re-sellers, food service companies, industry associations, and R&D corporations. The Unit also undertakes a number of cross-disciplinary research projects in partnership with other operational areas in the University and with other institutions. It has a strong record of R&D collaborations with Australian and overseas organisations and has established individual- and institution-level research partnerships with R&D organisations and universities in the USA, UK, France, Korea, Japan, India and Malaysia. A summary of the major activities of the Unit is as follows:

CORE R&D AND POST GRADUATE (PHD AND MASTERS) PROJECTS
The Unit’s R&D and postgraduate research projects cover the entire food value chain (from paddock to plate) and incorporate a cross-section of macro and micro issues and trends pertaining to consumers, firms, industry, government, and stakeholders in the industry. Past and on-going research projects address issues such as organisational and governance structures such as business networks, strategic partnerships, and strategic alliances; entrepreneurship and the relationship of entrepreneurial orientation to factors such as innovation orientation, innovation adoption, and business performance; business-to-business and consumer buyer beliefs and attitudes, and the influence of buyer beliefs and attitudes on behaviors such as the consumption and marketing of functional foods or ‘Green’ foods; business-to-business relationship marketing and management issues arising from developments such as the digitisation and convergence of economic activities; problems focusing on organisational culture and personal culture in business partnerships, trade relationships, and ethnic/minority community businesses; externalities such as interest group influence on food production and marketing; public policy issues and trends in regard to matters such as the development of ‘new’ industries, and food trade and investment flows; analysis of the commercialisation of research and development programs in the food industry; the interface between community, business and government in food industry development; and issues on food security, food self-sufficiency, and the globalization of food markets.

CROSS DISCIPLINARY AND COLLABORATIVE R&D PROJECTS
The Unit also undertakes a wide range of cross-disciplinary projects in collaboration with other operational areas in Victoria University. Recent collaborative projects included the sensory evaluation and development of a quality index for fish (School of Molecular Sciences); development of an energy saving and water saving mobile hydro cooler for the fresh vegetable industry (School of Architectural, Civil and Mechanical Engineering, and School of Molecular Sciences); sustainable and environmentally friendly food production and marketing (Key Research Area in Integrated Food Value Chain; and School of Hospitality, Tourism and Marketing); assessment of trends and developments in the use of different methods of fertilising and irrigating food crops (School of Applied Economics).

UNDERGRADUATE STUDENT EXCHANGE PROJECTS
The Unit also developed and is lead managing an undergraduate-level student exchange project, funded by the Department of Education, Science and Training under its University Mobility in Asia and the Pacific Program, between the School of Molecular Sciences in Victoria University and the Faculty of Food Science and Biotechnology in Universiti Putra Malaysia.

CONTRACT RESEARCH AND CONSULTANCY PROJECTS
The Unit provides contract research and consultancy services for activities such as developing business plans, undertaking market and/or product feasibility reports, developing marketing reports, undertaking customer satisfaction surveys, and the crafting of proposals for R&D grants.

RESEARCH DISSEMINATION AND MENTORING ACTIVITIES
The Food Marketing Research Unit is the Secretariat for the ASEAN Food Journal, a peer reviewed academic journal in food science, food technology, and food business. The ASEAN Food Journal is a joint enterprise between Victoria University of Technology and Universiti Putra Malaysia in Malaysia.

The Unit undertakes a wide variety of research dissemination and mentoring activities such organising and hosting seminars, workshops, conferences, and assisting in peer reviewing manuscripts for academic journals, conferences, and trade publications.
SCHOOL OF ARCHITECTURAL, CIVIL AND MECHANICAL ENGINEERING

COURSES OFFERED
The School of Architectural, Civil and Mechanical Engineering offers postgraduate courses leading to the award of:

- Graduate Certificate in Project Management;
- Graduate Diploma in Project Management;
- Master of Engineering (Project Management) (coursework program, based on the above graduate diplomas);
- Master of Engineering in Mechanical Engineering (coursework);
- Master of Engineering (Research);
- Doctor of Philosophy.

RESEARCH ACTIVITIES
Members of staff in the School of Architectural, Civil and Mechanical Engineering (ACME) carry out a wide range of fundamental and applied research. Much of the work is carried out in close collaboration with industry, government bodies and other research institutions. Research in ACME is focused into three areas, namely:

- structural dynamics and vibrations;
- thermofluids;
- engineering for sustainability.

STRUCTURAL DYNAMICS AND VIBRATIONS
The Structural Dynamics and Vibrations research group undertakes research in the fields of vibration, structural dynamics, system dynamics and protective packaging. Research of this nature is broad-ranging and finds applications in all modes of transport, distribution, manufacturing, the military, the electronics industry, acoustics and sound, offshore activities, power generation and distribution, mining and resources exploitation, building services and architecture, structural engineering, seismic and wind engineering, sensor technology and even space exploration. Although the potential applications of our research are considerable in both number and breadth, the activities within the group have been and are, by necessity, focused on the following applications:

- ENVIRONMENTAL VIBRATIONS AND DISTRIBUTION HAZARDS
  Investigations include the study and investigation of novel and practical methods to monitor, measure, analyse and simulate shock and random vibrations to products and packages being transported.

- PAVEMENT–VEHICLE–CONSIGNMENT INTERACTION
  The study of the interaction between pavement topography, vehicles and consignments/passengers. This includes classifying the nature of random pavement and terrain topography as well as the study of dynamic forces and motion generated at the interface of pavements and vehicles and between vehicles and consignments. The behaviour of packaging systems under stochastic loads is also being elucidated.

- PROTECTIVE PACKAGING AND CUSHIONING MATERIALS
  Entails the development of new protective packaging materials, cushioning systems as well as the development of enhanced methods to determine the effectiveness and improve the optimisation of protective packaging systems.

- NON-LINEAR VEHICLE DYNAMICS
  Involves the study on the non-linear behaviour of vehicles and suspension systems and includes the development of methods to identify and non-linearities and simulate non-linear effects.
THERMOFLUIDS
The thermofluids research group carries out a range of theoretical and experimental studies on fluid dynamics and heat transfer. A strand of its work considers the interaction of fires and structures, and Thermofluids makes significant contributions to the area of manipulating environments within building-enclosures. Some of the specific projects include:

THERMAL PLUMES
Thermal plumes arise in many applications, such as the spread of fires in buildings, heating and ventilation and the spread of pollutants. The research in this group studies the basic mechanisms of buoyancy-driven flows and their effect on the behaviour of turbulence.

DYNAMIC RESPONSE OF HOT-WIRES
Hot-wires are used to measure the not only the average flow rates of gases, but also they enable small deviations from the average to be measured. This enables engineers to gain insights into the nature of turbulent flows. ACME has a strong research team studying the dynamic response of hot-wires and how their construction can be improved to avoid erroneous measurements being recorded.

COMPUTATIONAL FLUID DYNAMICS
Computers can be used to study the flow of fluids under very diverse situations such as air flows in a room, air flows between buildings in cities, the flow of liquids in oil reservoirs, the sloshing of liquids in containers and so on. The computer programs used to simulate these flows depend ultimately on a good understanding of the physics of fluids and computational algorithms. Members of this research group develop and use computational fluid dynamics software.

FLUID DYNAMICS AND FIRE ENGINEERING
Members of the Thermofluids research group use the tools of fluid dynamics and computing to study the behaviour of fires in buildings. One project involves the study of the spread of smoke in a building, another is concerned with the response of structural elements of buildings to fires and a member of the group is studying flows in a complex network of an aspiration smoke detector.

ADVERSE PRESSURE FLOWS
We generally think of fluids being forced along a pipe, say, as a result of a pressure driving force that goes from high to low in the direction of flow. However, once a flowing fluid has gained momentum it can continue to flow against a pressure gradient, just as a cyclist can continue to climb a hill without pedalling (at least for a little while). ACME has a renowned reputation of studying these so-called adverse pressure gradient flows.

FLOWS IN POROUS MEDIA
Porous media are encountered in many applications such as the flow of water in aquifers, air flow through stored food grains and fluid flows in chemical reactors. A problem is that the flow through the interstices between the solid particles is on length scales that are much smaller than the size of the porous medium. A grain silo, for example, is much larger than the size of the grain kernels stored within it. Researchers in ACME work on reconciling these differences and formulating appropriate design equations.

AUTOMOBILE ENGINEERING
Research is being conducted on improving the design of automobile engines. A new system for actuating valves has been designed and work is being conducted on the use of alternative fuels.

LABORATORY FACILITIES
The thermofluids research group has well-established facilities that include:

- a range of wind tunnels – one of which has variable geometry to study adverse pressure gradients;
- secondary standards for calibrating manometers;
- a range of humidity, temperature sensors and data loggers;
- excellent workshop and fabrication facilities;
- signal analysers to characterise turbulent flows;
- a particle image velocimeter;
- a range of software including computational fluid dynamics software including CFX® and COMPACT®.

ENGINEERING FOR SUSTAINABILITY
There are a large number of definitions of sustainability, one of which is:

A sustainable society is one that permits the personal, social, aesthetic and intellectual well-being of all people to grow throughout their entire lives.

Engineering is embedded in this definition which implies that people will be free from drudgery, they will not have to worry about being hungry and they will have shelter and infrastructure that are adequate for them to grow physically, emotionally and intellectually. Research areas in Engineering for Sustainability include:

WATER SUPPLY PLANNING AND MANAGEMENT
Reliable supplies of clean and potable water are increasingly scarce and they require adequate planning. Research activities in this area include:

- reservoir management;
- water conservation and demand management;
- urban and rural water supply;
- water sharing principles.

URBAN WATER CYCLE MANAGEMENT
Although much of the water used in cities is harvested and stored in catchment areas in rural areas a large amount of rain also falls on urban areas. These areas are characterized by have large areas of impermeable surfaces such as roofs, roads and perhaps airport runways, and they have large networks of storm water disposal systems. Urban environments therefore provide a potential source for harvesting and supplying water. As a result the following projects are being carried out:

- water sensitive urban design;
- reuse of wastewater/use of storm water;
- urban drainage;
- holistic management of urban water cycle.

RIVER WATER QUALITY MODELLING AND MANAGEMENT
A safe water supply and environmentally sound water distribution system relies on a clean, unpolluted system of rivers. This research is aimed at studying factors that affect the integrity of water quality.

EDUCATIONAL RESEARCH
Universities are the institutions charged with educating future generations of professional engineers. It is important that this education process is carried out in a scholarly manner and that it is effective. For this reason, members of staff work closely with colleagues in the University’s Centre for Educational Development and Support in devising and evaluating its courses. The principal beneficiaries are undergraduate students but it also leads to members of staff being able to make contributions to the profession of university teaching. Areas of research include: Sustainability teaching – how to teach principles/concepts to engineers; conversazioni as a vehicle for participatory learning; educational development of concepts specific to Fluid Mechanics.
POST HARVEST TECHNOLOGY
Each year some $100,000,000,000 worth of stored grains such as wheat, rice and maize is destroyed during storage. The main causes of loss result from attack by insect pests and moulds. Insects can be controlled by applying pesticides to the grains but within a few years they become resistant to these chemicals, and consumers are wary of eating chemically treated grains. An alternative to using pesticides is to cool grains. Moulds can be controlled by ensuring that all regions of a bulk of stored grains are sufficiently dry. This research area is developing engineering, as opposed to chemical methods of maintaining stored grains in good condition. A further project in post harvest technology is aimed at developing water-efficient methods of cooling horticultural produce.

ADMISSION REQUIREMENTS
As indicated above, a wide range of challenging research projects are available leading to Master of Engineering by Research and Doctor of Philosophy degrees. For admission, high honours results in a recognised undergraduate course, or an equivalent qualification, is required. Initial enquiries regarding eligibility for admission and research projects should be directed to the Postgraduate Co-ordinator at (03) 9919 4227.

ACADEMIC PROGRESSION GUIDELINES AND UNSATISFACTORY PROGRESS
Normal progress through a course requires a student to complete any defined course year within one year of equivalent full-time enrolment. When all subjects in a course year are passed, a stage grading of 'year completed' may be given. Any of the following may be considered to constitute unsatisfactory progress by a student:
• failure in any subject or unit for the second time;
• failure to complete the course within any maximum period defined by University Statute;
• failure to meet a conditional enrolment agreement.
As otherwise defined by University Statute, and subject to being invited to show cause, a student making unsatisfactory progress will normally be recommended for exclusion from the course.

GRADUATE CERTIFICATE IN PROJECT MANAGEMENT
Course Code: ETPM
The School of Architectural, Civil and Mechanical Engineering conducts the Graduate Diploma in Project Management and the Masters of Engineering in Project Management.
Currently, major initiatives are in progress which will require professionals to practice only in certain areas based on their qualifications and experience. This is particularly the case in the field of project management.

COURSE OBJECTIVES
The course provides opportunities for professional people to:
(a) develop advanced technical skills in a specialist discipline;
(b) develop their understanding of legislation and management relevant to their employment;
(c) develop ability to plan, co-ordinate and complete complex projects;
(d) apply and extend research and reporting skills and gain specialist knowledge of a topic relevant to their employment.
The course will be directed at registered building surveyors and other building practitioners such as architects, engineers, quantity surveyors, etc., with at least one year of relevant professional experience. Other professions directly affected by performance regulations will be encouraged to participate.
The aims of the course are to:
• introduce the concepts and alternative acceptable frameworks for performance based codes, with particular, but not exclusive, emphasis given to project management practices;
• provide building engineering and allied professions with the appropriate knowledge and skills necessary for the assessment and application of performance-based project management practices;
• develop an appreciation of the legal, statutory and design integrity requirements and the need for compliance of the design assumptions throughout the operational life of the building or facility; and
• develop a recognition of the desirability of undertaking additional courses to further upgrade skills and expertise.

ADMISSION REQUIREMENTS
Qualifications accepted are a degree or diploma or associate diploma in Engineering or Building or Quantity Surveying or Architecture or Construction from a University or College of Advanced Education or Technical and Further Education in Australia.
Applicants with other qualifications deemed to be equivalent to the degree, diploma or associate diploma may be admitted. Applicants must have at least one year of relevant experience in the design, construction and/or management of building and engineering projects before being admitted to the course.
The formal qualification requirements may be waived in exceptional circumstances.
• IELTS – an overall band score of 6+, subject to individual profile.
• TOEFL – a score of 550+, and a Test of Written English score of 5+.

COURSE DURATION
The course will be delivered as follows:
• each subject will be presented as a three-hour session one evening per week for one semester;
• two subjects will be presented each semester.
The course will be presented over two semesters during a 12-month period.

COURSE STRUCTURE

Year 1
Project Management subjects
Core Subjects

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCPU00</td>
<td>Project Management Fundamentals</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>VCPU610</td>
<td>Project Management Planning and Control</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

Elective Subjects

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCPU5620</td>
<td>Project Management &amp; Contracts</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>VCPU5705</td>
<td>Project Management and Information Technology</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>VCPU5716</td>
<td>Project Development Analysis Management</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>VCPU5726</td>
<td>Project Procurement Management</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>VCPU5736</td>
<td>Facility Life Cycle Costing Management</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Credit Points: 273
VCPS745 Building Regulatory Management 1 15
VCPS800 Telecommunications Project Management 1 15
plus approved subjects currently available at Victoria University, Footscray Park Campus, such as:

**Computer Science** (semesters to be advised)
- RCM5404 Financial Decision Support Systems 15
- RCM5801 Introduction to Computer Science 15
- RCM5802 Information Systems 15

**Decision Support Science**
- RCM5602 Quality Management and Statistics 15
- RCM5901 Introduction to Decision Support Systems 15

**Business Management**
- BAO5735 Advanced Forecasting, Planning and Control 15
- BLOS513 Law of Employment 15
- BLOS537 Business Law 15
- BLO 6502 Law of Management 15

**Industrial Relations**
- BAO5544 Human Resource Economics 15
- BMO5545 Comparative Industrial Relations Systems 15
- BMO5537 Topics in Employee Relations Management 15
- BMO5589 Industrial Relations & the Building Industry 15

The availability of electives from other areas/schools depends on staff resources and enrolments.

GRADUATE DIPLOMA IN PROJECT MANAGEMENT

Course Code: EGPM

The Graduate Diploma in Project Management at Victoria University was the first such course set up in Victoria, and only the second in Australia. Throughout all its first decade it has been an industry leader. When the first Graduate Diploma in Project Management began in 1984, the focus was on the narrowly technical. Now, the course is concerned with the human and social perspective, with building teams that work well together and with placing the management of the project firmly within the wider environment.

**COURSE OBJECTIVES**

The course is designed specifically to meet the needs of current or potential managers in the building construction and related industries. It will equip the professionals already in the industry with advanced principles and techniques of project management to enable them to assume the role of project manager and/or become effective members of project management teams.

**ADMISSION REQUIREMENTS**

Applications should have a degree or diploma in architecture, building, construction, engineering, quantity surveying, or other relevant discipline and at least two years of experience or current employment at professional level in the relevant field. Suitable proof of these will be required prior to enrolment.

Other qualifications may be considered acceptable and the formal qualification requirements may be waived in exceptional circumstances.

In addition, all applicants applying as full-fee paying international students must provide evidence of proficiency in the English language:

- IELTS – an overall band score of 6+, subject to individual profile;
- TOEFL – a score of 550+, and a Test of Written English score of 5+.

**COURSE DURATION**

The course is offered on a full-time basis over one year for full-fee paying international students or on a part-time basis over a minimum of two years.

**COURSE STRUCTURE**

The course consists of eight subjects as follows: four ‘core’ subjects to develop a basic knowledge in fundamentals of project management, project planning and control, project management of contracts and industrial relations in the building and construction industry; four ‘electives’ are selected to achieve a better understanding and working knowledge of all disciplines involved in management of a project. Students must complete 120 credit points.

**Year 1**

**Compulsory core subjects**
- BMO5589 Industrial Relations and the Building Industry 1 15
- VCPS5600 Project Management Fundamentals 1 15
- VCPS5610 Project Management Planning and Control 2 15
- VCPS5620 Project Management & Contracts 2 15

**Elective subjects**
- Four electives are selected from the following:
- VCPS705 Project Management and Information Technology 1 15
- VCPS716 Project Development Analysis 2 15
- VCPS726 Project Procurement Management 1 15
- VCPS736 Facility Life Cycle Costing 2 15
- VCPS745 Building Regulatory Management 1 15
- VCPS800 Telecommunications Project Management 2 15

plus approved subjects currently available at Victoria University, Footscray Park Campus. These approved subjects may include:

**Computer Science** (semesters to be advised)
- RCM5404 Financial Decision Support Systems 15
- RCM5801 Introduction to Computer Science 15
- RCM5802 Information Systems 15

**Decision Support Science**
- RCM5602 Quality Management and Statistics 15
- RCM5901 Introduction to Decision Support Systems 15

The availability of electives from other departments depends on staff resources and enrolments.

**ASSESSMENT**

Assessment will be by projects, submission and examination. Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers. Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.
MASTER OF ENGINEERING (PROJECT MANAGEMENT) (COURSEWORK)
Course Code: EMPM

COURSE OBJECTIVES
Since 1990s government, industry and individuals increasingly recognise the Masters degree as an important benchmark measure of vocational and professional training. The Master of Engineering (Project Management) provides opportunities for professional engineers and managers to achieve high level training in contemporary engineering methods. The course gives students a large choice of both technical and managerial subjects, and it enables professional people to:

- develop advanced technical skills in a specialist discipline;
- develop their understanding of legislation and management relevant to their employment;
- develop ability to plan, co-ordinate and complete complex projects;
- apply and extend research and reporting skills and gain specialist knowledge of a topic relevant to their employment.

ADMISSION REQUIREMENTS
An honours degree in a relevant discipline and relevant work experience will normally be required to enter the course. Advanced entry may be approved for students who have completed at least four subjects of a relevant Graduate Diploma with an upper second class honours average.

In addition, all applicants applying as full-fee paying international students must provide evidence of proficiency in the English language:

- IELTS – an overall band score of 6+, subject to individual profile;
- TOEFL – a score of 550+, and a Test of Written English (TWE) score of 5+.  

COURSE DURATION
The course is offered over one-and-a-half years on a full-time basis or over three years on a part-time basis. Students must complete 180 credit points.

COURSE STRUCTURE
Candidates must complete to a satisfactory standard eight approved subjects of three hours per week Class Contact selected from approved Graduate Diplomas of Engineering, or any other postgraduate subject deemed equivalent by the Course Co-ordinator, plus a minor thesis of 12 hours per week for one semester or six hours per week for two semesters, or ten subjects of three hours per week Class Contact selected from approved Graduate Diplomas of Engineering plus a thesis/project of six hours per week for one semester or three hours per week for two semesters. The Masters Degree structure is:

<table>
<thead>
<tr>
<th>Year 1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Graduate Diploma subjects</td>
<td>1</td>
<td>60</td>
</tr>
<tr>
<td>4 Graduate Diploma subjects</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>or part-time over two or three years</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC8000 Research Thesis (full-time) or</td>
<td>1</td>
<td>60</td>
</tr>
<tr>
<td>VCC8010 Research Thesis (part-time) or</td>
<td>1&amp;2</td>
<td>30</td>
</tr>
<tr>
<td>VCC8040 Project work (full-time)</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>2 Graduate Diploma subjects (full-time) or</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>VCC8050 Project work (part-time)</td>
<td>1&amp;2</td>
<td>15</td>
</tr>
</tbody>
</table>

2 Graduate Diploma subjects 1&2 15

The Masters Degree programme uses subjects of the existing Graduate Diplomas within the area for the coursework content. Additionally, students who complete other Graduate Diploma courses with Honours averages may be admitted to the Degree with advanced standing.

Students may choose from the following Graduate Diploma subjects:

- BLO5137 Business Law
- BLO5113 Law of Employment
- BAO5545 Advanced Forecasting, Planning and Control
- BAO5544 Human Resource Economics
- BLO6502 Law for Management
- BMO5545 Comparative Industrial Relations Systems
- BMO5537 Topics in Employee Relations Management
- BMO5589 Industrial Relations and the Building Industry
- RCM5404 Financial Decisions Support Systems
- RCM5602 Quality Management and Statistics
- RCM5801 Introduction to Computer Science
- RCM5802 Information Systems
- RCM5901 Introduction to Decision Support Systems
- VCP5600 Project Management Fundamentals
- VCP5610 Project Management Planning and Control
- VCP5620 Project Management and Contracts
- VCP5705 Project Management and Information Technology
- VCP5716 Project Development Analysis
- VCP5726 Project Procurement Management
- VCP5736 Facility Life Cycle Costing
- VCP5745 Building Regulatory Management
- VCP5800 Telecommunications Project Management

ASSESSMENT
Assessment will be by a combination of written assignments, oral presentations, case studies, written examination and by the satisfactory completion of a thesis. Except in special circumstances supplementary assessment for subjects taught by the School of Architectural, Civil and Mechanical Engineering will not be offered.

Guidelines on the use of electronic calculators and other electronic storage devices in examinations are provided in individual subject outlines distributed to students within the first two weeks of semester and included on final examination papers.

Electronic calculators and other electronic storage devices will not be permitted where the above provisions have not been made.

MASTER OF ENGINEERING IN MECHANICAL ENGINEERING (COURSEWORK)
Course Code: EMME CRICOS Code: 047452F

COURSE OBJECTIVES
The aim of this course is to provide students with an opportunity to achieve in-depth comprehension of engineering fundamentals and advanced skills of research and development essential in modern practice of Mechanical Engineering.

ADMISSION REQUIREMENTS
Admission to the course may be granted to the following applicants:

- holders of a Four Year Bachelor of Mechanical Engineering degree, or an equivalent, accredited for Graduate membership of the Institution of Engineers, Australia, having either an Honours degree or an ordinary degree with significant professional industrial experience.
applicants with overseas degree in Mechanical Engineering at least at Bachelor level and judged by the School of Architectural, Civil and Mechanical Engineering to be of excellent standard.

Applicants with qualifications at least at Bachelor level in other engineering and science disciplines with a minimum of three years industrial experience.

In addition, full fee international students must provide evidence of proficiency in the English Language:

- IELTS – an overall band score of 6+;
- TOEFL – a minimum score of 550+ and a TWE (Test of Written English) score of 5+.

COURSE DURATION

The Course is offered over a period of two years full time. Applicants of exceptional standard may get exemption of Semester 1 and may complete the course in one-and-a-half years full time.

COURSE STRUCTURE

(xemption of one or more subjects in this Semester is considered on a case by case basis).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMY5682</td>
<td>Experimental Techniques and Signal Processing</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>VMC5672</td>
<td>Numerical Techniques and Programming</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>VMW5682</td>
<td>Manufacturing Materials</td>
<td>1</td>
<td>15</td>
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<tr>
<td>VCP5610</td>
<td>Project Management Planning and Control</td>
<td>1</td>
<td>15</td>
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<tr>
<td>VMC 5771</td>
<td>Computer Aided Engineering</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>VMV 5781</td>
<td>Advanced Dynamics and Vibration</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>VMF 5881</td>
<td>Advanced Fluid-Thermodynamics</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>VMW 5771</td>
<td>Research techniques</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>VMV5782</td>
<td>Computational Dynamics</td>
<td>3</td>
<td>15</td>
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<tr>
<td>VMT5882</td>
<td>Computational Fluid Dynamics</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>VME5782</td>
<td>Specialist Elective</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>VMP 5872</td>
<td>Research Project</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>VMR 5781</td>
<td>Minor Thesis</td>
<td>4</td>
<td>60</td>
</tr>
</tbody>
</table>

ASSESSMENT

Assessment of the coursework will be a combination of examinations, written assignments, tests, and laboratory work. To achieve a successful Minor Thesis student will have to demonstrate competence in research of an engineering problem, reviewing literature, collecting and analysing data, drawing conclusions and writing the thesis. Assessment of the Minor Thesis is entirely based on the thesis by two examiners, at least one is external to the University.
SCHOOL OF BIOMEDICAL SCIENCES

The Biomedical Sciences group (encompassing the four major research areas: Muscle Physiology, Nutrition, Health & Lifestyle, and Reproductive Physiology) has active research within two strategic research areas of strength within the University: Medical Biotechnology, and Rehabilitation, Exercise and Sport Science. These areas have a major focus on the use of state-of-the-art medical research techniques to investigate the functioning of the human body in both health and disease. Specific expertise includes reproductive physiology, molecular biology, cancer, genetics exercise, muscle metabolism and physiology, nutrition, lifestyle management and rehabilitation. This expertise provides the opportunity to learn a wide variety of valuable skills within a project tailored to satisfy students’ interests.

MUSCLE PHYSIOLOGY

Exercise is one of the most common human pursuits. From the weekend jogger to the professional athlete, the way in which our muscles produce and utilise energy is of the utmost importance. In addition, optimising skeletal muscle function and recovery from injury is also essential. The Exercise Metabolism Unit (EMU) is part of the Centre for Rehabilitation Exercise and Sports Sciences (CRESS) within Victoria University. The major focus of their work includes: muscle metabolism and fatigue in normal and hot conditions; muscle metabolism in endurance and sprint training; regulation of calcium and force production in skeletal muscle, metabolic control and adaptations to exercise; recovery from muscle; and exercise and muscle function in cardiac, respiratory and muscle disease, and ageing associated changes in skeletal muscle DNA damage and repair.

The Muscle Cell Biochemistry Laboratory is funded by the National Health and Medical Research Council (NH&MRC) and the Australian Research Council (ARC), Australia’s two top funding bodies. The major focus of their work includes: Biochemistry of single muscle fibres, and physiological and pathophysiological conditions associated with glycogen depletion or sugar excess in muscle fatigue, ageing and diabetes.

NUTRITION

We are what we eat is a simple statement. However, it is of extreme importance to our general health. Whether it is the intake for growing bodies in children or adolescents, or maintaining a healthy lifestyle in the elderly, nutrition is important to everyone in their day-to-day lives. The major focus of this area is: nutritional intakes in preschool children, the role of antioxidants in protecting DNA from age associated damage, and analysis of n-3 PUFA and the health benefits of consumption of seafood, especially shellfish.

HEALTH AND LIFESTYLE

Wellness is a new area of research that examines individuals well-being and levels of health. Particular interests are community awareness of and attitudes towards, as well as the effects of, issues relating to the general health of the population, such as genetic engineering of food and immunisation. This research area encompasses the health of infants and children as they mature through puberty to adolescents; of adults as they reproduce and mature to mid-life, and of older people. Health concerns are highlighted in each of these life cycle/reproductive stages. Studies in the area of family health include: parenting transition; the aetiology and consequences of perinatal depression; the nature of neurotransmitters in heroine addicts; the clinical management of drug dependence; the aetiology of schizophrenia; the use of proteins in saliva as markers to assess stress, pain and inflammation; and the assessment of gas pollutants in indoor environments. The major focus of this area is: biological markers, psychosocial factors, stress, coping style and the immune system, and the effect of hormone replacement therapy and exercise on bone and cardiovascular parameters.

REPRODUCTIVE PHYSIOLOGY

The Biomedical Sciences group has a very strong background in research into all facets of reproduction and perinatal development. This research unit links projects on women’s health, implantation and embryo development, foetal development and parturition, and family health. The current areas of research include:

WOMEN’S HEALTH

From puberty to late post-menopause, has become an important and popular area of reproductive research. Studies in this area include: the role of steroid and peptide hormones in the regulation and function of menstrual and reproductive cycles and the interrelationships between physiological and psychological parameters in response to stressors on the regulation of the menstrual and reproductive cycles.

IMPLANTATION AND EMBRYO DEVELOPMENT

Studies into implantation and embryo development include: the role of steroid hormones and other factors in the successful establishment of pregnancy; the development of the neural tube of the embryo; and the growth and differentiation of the placenta.

FOETAL DEVELOPMENT AND PARTURITION

By the time of birth, the foetus must have developed sufficiently to adapt to its extrauterine environment. Often, infants who are delivered prematurely have numerous medical problems which require very expensive intensive care. Studies into foetal development and parturition include: growth and development of the foetal and neonatal lung; diabetes during pregnancy; rupture of foetal membranes during term and pre-term labour, the initiation of parturition; and parenting of premature infants.

FOETAL PROGRAMMING OF ADULT DISEASE

An exciting area of research investigating the factors and mechanisms during foetal development which pre-determine what adult diseases the foetus will develop in adult life. Research has shown strong relationships between small size at birth and the development of high blood pressure, cardiovascular disease and diabetes as an adult.
SCHOOL OF COMPUTER SCIENCE AND MATHEMATICS


Exploding technology ensures that research in computing and computer science is constantly changing and developing. The computing research emphasis includes visual information systems, database systems, computer networking and communications. The mathematicians have a broad spectrum of interests, with major research outputs in information theory and coding, theory of inequalities applied in numerical and Fourier analysis, image processing, and differential and integral equations. The research group in mathematical inequalities and applications (RGMIA) is the focus of an international collaboration of leading mathematicians in the area.

Additional areas of research focus include, reliability, experimental design, statistical process control, and the theory and application of object-oriented languages. There is also interest in optimal pricing policies.

School staff members are active in a number of research projects supported through the cooperation of industrial bodies and national research organisations.

The School has a number of specific research areas such as:
- Internet technologies;
- visual information systems;
- network multimedia and databases;
- analysis of inequalities, information theory;
- coding & cryptography;
- financial and risk modelling;
- image processing;
- industrial process modelling;
- education within the discipline areas.

POSTGRADUATE PROGRAMS BY RESEARCH

The School offers the following research degrees:
- Doctor of Philosophy;
- Master of Science (Research).

Research topics compatible with the School's facilities and staff expertise are negotiated between students and supervisors. A number of research programs are available in the above areas. In addition, applicants with interests in similar areas are encouraged to discuss them with the School, telephone (03) 9919 4492.

A booklet with more specific research details for the benefit of prospective students is available on request.

MINIMUM STANDARDS OF ENTRY

Applicants should have formal qualifications and experience at least equivalent to an Australian four year Bachelor's degree with Honours in an appropriate discipline. Applicants wishing to undertake a PhD who do not already possess a Master's degree will normally be expected to enrol initially for a Master's degree and will be considered for transfer to PhD candidature after one year of study.

All overseas applicants must provide evidence of proficiency in the English language:
- IELTS – an overall band score of 6.5, subject to individual profile; or
- TOEFL – a score of 550+, and a Test of Written English (TWE) score of 5+.

PROGRAM DURATION

Candidates will undertake research in one of the above areas and will be examined by dissertation (thesis). Candidates may be required to undertake course work as part of the overall higher degree program. Any such subjects will be specified at the time of commencement.

A full-time research Masters degree will normally take up to two years and a PhD degree is likely to take a minimum of three years.

DOCTOR OF PHILOSOPHY

Course Code: EPHC, EPLC, EPOT

MASTER OF SCIENCE (RESEARCH)

Course Code: SRHC, SRLC, SROT

COURSE STRUCTURE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>RCM8002</td>
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<tr>
<td>RCM8011</td>
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<tr>
<td>RCM8012</td>
<td>2</td>
<td>24</td>
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</tbody>
</table>

COURSEWORK PROGRAMS

The School offers a range of coursework programs at postgraduate level:

- Graduate Diplomas in:
  - Computer Science
  - Computer and Mathematical Sciences
  - Multimedia Information Networking
  - Software Engineering

- Master of Science in:
  - Computer Science
  - Computer and Mathematical Sciences
  - Software Engineering
GRADUATE DIPLOMA IN COMPUTER SCIENCE
Course Code: SGCS

GRADUATE DIPLOMA IN COMPUTER AND MATHEMATICAL SCIENCES
Course Code: SGCM

COURSE OBJECTIVES
The Graduate Diploma programs are designed for graduates who want to acquire professional competence in Computer Science and/or the Mathematical Sciences.

Each Graduate Diploma develops graduates who have a sound conceptual foundation, including practical understanding of recent developments in computer technology and how these may be applied to solve a wide range of problems in business and industry. The Graduate Diploma in Computer and Mathematical Sciences offers a strong mathematical sciences component.

ADMISSION REQUIREMENTS
Entry to each course is open to applicants with a first degree. Preference will be given to applicants whose degree contains major studies in a quantitative discipline. Other applicants whose occupation or experience indicates that they have the capacity to succeed may be accepted into the course.

COURSE DURATION
Each course is offered on both a full-time (one year) and a part-time basis. Part-time students will normally take two years to complete the course. Lectures will normally be offered in the evenings, however, some of the subjects are available during the day.

COURSE STRUCTURE
Two streams of subjects are available:

- Computer Science;
  - Computer Programming;
  - Information Systems;
  - Multimedia & Networking;
  - Software Engineering;
- Mathematical Sciences;
  - Production and Distribution Management;
  - Modelling for Finance;
  - Data Analysis.

The courses provide maximum flexibility allowing specialisation in either one or a combination of the two streams.

To complete a Graduate Diploma, students are required to pass four Computer Science subjects and four Mathematical subjects.

<table>
<thead>
<tr>
<th>COMPUTER SCIENCE SUBJECTS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RCM5800 Object Oriented Programming GD1</td>
<td>1</td>
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<tr>
<td>RCM5802 Information Systems</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RCM5805 Communication and Networks</td>
<td>1</td>
<td>12</td>
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<tr>
<td>RCM5821 Introduction to Multimedia Systems</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>2 x Approved Electives in Computer Science</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>2 x Approved Electives</td>
<td>2</td>
<td>24</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>96</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MATHEMATICAL SCIENCE SUBJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCM5800 Object Oriented Programming GD1</td>
</tr>
<tr>
<td>RCM5802 Information Systems</td>
</tr>
<tr>
<td>2 x Approved Electives in Mathematics</td>
</tr>
<tr>
<td>RCM5805 Communication and Networks</td>
</tr>
<tr>
<td>2 x Approved Electives in Mathematics</td>
</tr>
<tr>
<td>1 x Approved Electives in CS</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

PROGRESSION REGULATIONS
The School’s Academic Committees (Examiners’ Meetings) will, at the end of each semester, consider the results and progress of all students enrolled in the course.

Progression is based on the following guidelines:

(i) Where any subject must be repeated, enrolment in that subject must be at the first opportunity following the initial failure.

(ii) Students will not normally be allowed to enrol in any subject for which at least a H3 grade has not been attained in any of the pre-requisite subjects.

UNSATISFACTORY PROGRESS
These regulations should be read in conjunction with Victoria University’s Statute 6.4.1. – Unsatisfactory Progress. The following regulations apply to both full-time and part-time students.

(i) The following shall constitute unsatisfactory progress:

(a) failure in at least 50 per cent of the assessed subjects for which a student has enrolled in a semester of study,

(b) failure in any subject twice,

(c) transgression of a conditional enrolment stipulation and agreement.

(ii) Where a student’s progress is unsatisfactory, the Departmental Academic Progress Committee may recommend the following:

(a) a restricted and conditional enrolment only be approved,

(b) exclusion from the course.

(iii) A student who wishes to appeal against the Department’s written recommendation is required to do so in accordance with the University’s Statutes. The procedures to be followed in lodging a submission, hearing of submissions and communicating the results of hearings are set out in the University’s Statutes.

(iv) Excluded students have no right of re-admission to the course from which they were excluded. Students who have been excluded may apply for re-admission not less than one calendar year from the date of exclusion. The student must provide, with his or her application, evidence of changed circumstances which significantly improve the applicant’s likelihood of academic success.

GRADUATE DIPLOMA IN MULTIMEDIA INFORMATION NETWORKING
Course Code: SGMN

COURSE OBJECTIVES
The aim of this course is to impart fundamental knowledge and training to people with non-computing backgrounds in the application and development of Multimedia Information Networks. The fundamental knowledge provides students with the ability to adapt to different computing platforms, application environments and rapid technological advancements encountered in the workplace.
Students will be able to gain employment in the Network Management area, as well as in the areas of Multimedia systems development, and Multimedia applications.

**ADMISSION REQUIREMENTS**

To qualify for admission to the course an applicant must have successfully completed an undergraduate degree in a non-computing discipline. Equivalent academic standing based on successful completion of recognised courses and industrial experience may also be considered sufficient for admission to the course.

**PROGRESSION REGULATIONS**

Graduate Diploma in Multimedia Information Networking will require one year of full-time study, or equivalent part-time study. Classes will be scheduled to cater for part-time students.

**COURSE STRUCTURE**

The course will cover the following four areas, each comprising two subjects:

- computer systems and programming;
- information systems;
- data communication and networks;
- multimedia systems.

The subjects offered in the course are:

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Subject Name</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCM5800</td>
<td>Object Oriented Programming GD1</td>
<td>1</td>
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<tr>
<td>RCM5802</td>
<td>Information Systems</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RCM5805</td>
<td>Communication and Networks</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RCM5821</td>
<td>Introduction to Multimedia Systems</td>
<td>1</td>
<td>12</td>
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<tr>
<td>RCM5807</td>
<td>Advanced Information Systems</td>
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<tr>
<td>RCM5820</td>
<td>Network Systems Administration</td>
<td>2</td>
<td>12</td>
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<tr>
<td>RCM5822</td>
<td>Networked Multimedia Systems</td>
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<td>12</td>
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<tr>
<td>RCM5824</td>
<td>Object Oriented Programming GD2</td>
<td>2</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>96</strong></td>
</tr>
</tbody>
</table>

**COURSE DURATION**

The course will cover the following four areas, each comprising two subjects:

- computer systems and programming;
- information systems;
- data communication and networks;
- multimedia systems.

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Subject Name</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCM6822</td>
<td>Internet Programming</td>
<td>1</td>
<td>12</td>
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<tr>
<td>RCM6840</td>
<td>Software Engineering 1</td>
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<td>12</td>
</tr>
<tr>
<td></td>
<td>2 x Approved Electives in</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computer Science</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>RCM5824</td>
<td>Object Oriented Programming GD2</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RCM6841</td>
<td>Software Engineering 2</td>
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<tr>
<td></td>
<td>2 x Approved Electives in</td>
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<td></td>
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<tr>
<td></td>
<td>Computer Science</td>
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<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>96</strong></td>
</tr>
</tbody>
</table>

**UNSATISFACTORY PROGRESS**

These regulations should be read in conjunction with Victoria University’s Statute 6.4.1. - Unsatisfactory Progress. The following regulations apply to both full-time and part-time students.

(i) The following shall constitute unsatisfactory progress:

- (a) failure in at least 50 per cent of the assessed subjects for which a student has enrolled in a semester of study;
- (b) failure in any subject twice;
- (c) transgression of a conditional enrolment stipulation and agreement.

(ii) Where a student’s progress is unsatisfactory, the School Academic Progress Committee may recommend the following:

- (a) a restricted and conditional enrolment only be approved;
- (b) exclusion from the course.

(iii) A student who wishes to appeal against the School’s written recommendation is required to do so in accordance with the University’s Statutes. The procedures to be followed in lodging a submission, hearing of submissions and communicating the results of hearings are set out in the University’s Statutes.

(iv) Excluded students have no right of re-admission to the course from which they were excluded. Students who have been excluded may apply for re-admission not less than one calendar year from the date of exclusion. The student must provide, with his or her application, evidence of changed circumstances which significantly improve the applicant’s likelihood of academic success.

**GRADUATE DIPLOMA IN SOFTWARE ENGINEERING**

Course Code: SGSE

**COURSE OBJECTIVES**

The Graduate Diploma program is designed for graduates who want to acquire professional competence in software engineering. The Graduate Diploma program develops graduates to have a sound knowledge and technical skills in the areas of software specification, design, implementation and management. This program has strong programming and software engineering components.

Successful students can articulate with full credit into the Master of Science in Software Engineering program.

**ADMISSION REQUIREMENTS**

Entry to this course is open to applicants with a first degree in computing. Preference will be given to applicants whose degree contains major studies in a quantitative discipline. Other applicants whose occupation or experience indicates that they have the capacity to succeed may be accepted into the course.

**COURSE DURATION**

The course is offered on both a full-time (one year) and a part-time basis. Part-time students will normally take two years to complete the course. Lectures will normally be offered in the evenings, however, some of the subjects are available during the day.

**COURSE STRUCTURE**

To complete the Graduate Diploma in Software Engineering requires the successful completion of four core subjects and four elective subjects.

**PROGRESSION REGULATIONS**

The School’s Academic Committees (Examiners’ Meetings) will, at the end of each semester, consider the results and progress of all students enrolled in the course. Progression is based on the following guidelines:

(i) Where any subject must be repeated, enrolment in that subject must be at the first opportunity following the initial failure.
(ii) Students will not normally be allowed to enrol in any subject for which at least a H3 grade has not been attained in any of the pre-requisite subjects.

**UNSATISFACTORY PROGRESS**

These regulations should be read in conjunction with Victoria University’s Statute 6.4.1. – Unsatisfactory Progress. The following regulations apply to both full-time and part-time students.

(i) The following shall constitute unsatisfactory progress:

(a) failure in at least 50 per cent of the assessed subjects for which a student has enrolled in a semester of study,

(b) failure in any subject twice,

(c) transgression of a conditional enrolment stipulation and agreement.

(ii) Where a student’s progress is unsatisfactory, the Departmental Academic Progress Committee may recommend the following:

(a) a restricted and conditional enrolment only be approved,

(b) exclusion from the course.

(iii) A student who wishes to appeal against the Department’s written recommendation is required to do so in accordance with the University’s Statutes. The procedures to be followed in lodging a submission, hearing of submissions and communicating the results of hearings are set out in the University’s Statutes.

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**MASTER OF SCIENCE IN COMPUTER SCIENCE**

Course Code: SMCS

**MASTER OF SCIENCE IN COMPUTER AND MATHEMATICAL SCIENCES**

Course Code: SMCM

**COURSE OBJECTIVES**

The Masters programs develop a sound theoretical knowledge of contemporary Computer Science techniques and/or the techniques in one specified field of study from the Mathematical Sciences. Emphasis is also placed on the application of these techniques in areas of business and industry.

**ADMISSION REQUIREMENTS**

To qualify for admission to the course an applicant must have successfully completed an appropriate degree or an equivalent combination of qualifications and experience.

Applicants must be competent in tertiary level mathematics and computing.

Applicants with any of the following qualifications may apply for credits against specific coursework subjects up to the indicated maximum.

(a) A degree in computer science (4).

(b) A four year honours degree in computer science (12).

(c) A pass degree [without a major in computer science] followed by an appropriate graduate diploma (8).

(d) A combination of qualifications and experience equivalent to (a), (b), or (c) above.

**COURSE DURATION**

The course is offered on a full-time basis over two years or on an equivalent part-time basis.

**COURSE STRUCTURE**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
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<tr>
<td>4 x Approved Electives in Computer Science</td>
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<tr>
<td>4 x Approved Electives in Computer Science</td>
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<tr>
<td><strong>Year 2</strong></td>
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<tr>
<td>4 x Approved Electives</td>
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<tr>
<td>RCM6103 Major Thesis, or</td>
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</tr>
<tr>
<td>RCM6102 Minor Thesis, and</td>
<td>2</td>
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<tr>
<td>2 x Approved Electives</td>
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</table>

**MATHEMATICAL SCIENCE SUBJECTS**

<table>
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<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
</tr>
<tr>
<td>2 x Approved Electives in Computer Science</td>
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</tr>
<tr>
<td>2 x Approved Electives in Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>2 x Approved Electives in Computer Science</td>
<td>2</td>
</tr>
<tr>
<td>2 x Approved Electives in Mathematics</td>
<td>2</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
</tr>
<tr>
<td>2 x Approved Electives in Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>2 x Approved Electives in Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>RCM6103 Major Thesis, or</td>
<td>2</td>
</tr>
<tr>
<td>RCM6102 Minor Thesis, and</td>
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</tr>
<tr>
<td>2 x Approved Electives</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>192</td>
</tr>
</tbody>
</table>

Students must obtain a pass in 14 semester units and a thesis equivalent to two semester units; or 12 semester units and a thesis equivalent to four semester units.

For the award of MSc in Computer Science, at least 8 units must be selected from the Computer Science stream. For the award of MSc in Computer and Mathematical Sciences, at least 6 units must be selected from the Mathematical Sciences stream.

**THESIS**

Where possible the candidate will be encouraged to choose a topic related to his/her own work situation.

RCM6102 – 24 credit points

RCM6103 – 48 credit points

**PROGRESSION REGULATIONS**

The School’s Academic Committees (Examiners’ Meetings) will, at the end of each semester, consider the results and progress of all students enrolled in the course.

Progression is based on the following guidelines:

(i) Where any subject must be repeated, enrolment in that subject must be at the first opportunity following the initial failure.

(ii) Students will not normally be allowed to enrol in any subject for which at least a H3 grade has not been attained in any of the pre-requisite subjects.

**UNSATISFACTORY PROGRESS**

These regulations should be read in conjunction with Victoria University’s Statute 6.4.1. – Unsatisfactory Progress. The following regulations apply to both full-time and part-time students.

(i) The following shall constitute unsatisfactory progress:

(a) failure in at least 50 per cent of the assessed subjects for which a student has enrolled in a semester of study,

(b) failure in any subject twice,

(c) transgression of a conditional enrolment stipulation and agreement.
(ii) Where a student’s progress is unsatisfactory, the School’s Academic Progress Committee may recommend the following: 
(a) a restricted and conditional enrolment only be approved, 
(b) exclusion from the course.

(iii) A student who wishes to appeal against the School’s written recommendation is required to do so in accordance with the University’s Statutes. The procedures to be followed in lodging a submission, hearing of submissions and communicating the results of hearings are set out in the University’s Statutes.

(iv) Excluded students have no right of re-admission to the course from which they were excluded. Students who have been excluded may apply for re-admission not less than one calendar year from the date of exclusion. The student must provide, with his or her application, evidence of changed circumstances which significantly improve the applicant’s likelihood of academic success.

MASTER OF SCIENCE IN SOFTWARE ENGINEERING

Course Code: SMSE

COURSE OBJECTIVES
The Master of Science in Software Engineering provides students with the basic knowledge and technical skills in the areas of software specification, design and implementation. Specific skills pertinent to the development and management of large software projects. Human communication skills including the professional presentation of ideas, designs and solutions, and the documentation associated with software development projects. Human communication skills including the professional presentation of ideas, designs and solutions, and the documentation associated with software development projects. Management skills, in relation to: a software project from concept to delivery; the units derived during software development; people, as part of a team and as a leader. The ability to deal with constantly changing technology by using knowledge and understanding of concepts and applying them to real problems in a variety of contexts. Professional awareness, including social and legal responsibility and ethics.

ADMISSION REQUIREMENTS
To qualify for admission to the course an applicant must have academic success. Applicants must be competent in tertiary level mathematics and computing (which may have to be demonstrated in special tests). Applicants with any of the following qualifications may apply for credits against specific coursework subjects up to the indicated maximum:
(a) A degree in with major studies in software engineering(4)
(b) A four year honours degree in (12)
(c) A pass degree (without a major in software engineering) followed by software engineering graduate diploma (8)
(d) A combination of qualifications and experience equivalent to (a), (b), or (c) above.

COURSE DURATION
The course is offered on a full-time basis over two years or on an equivalent part-time basis. For candidates given credit, the minimum duration must be at least the equivalent of one and a half years of full-time study following a three year degree.

COURSE STRUCTURE
To complete the Master of Science in Software Engineering requires the successful completion of eight cores subjects, six elective subjects and a minor thesis, (subject equivalence), or eight core subjects, four elective subjects and a major thesis, (subject equivalence).

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject</th>
<th>Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>RCM6840 Software Engineering 1</td>
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<tr>
<td></td>
<td>RCM6701 Internet Data Management 1</td>
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</tr>
<tr>
<td></td>
<td>2 x Approved Electives in CS</td>
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<td></td>
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<td>RCM6843 Software Engineering Project</td>
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<td></td>
<td>RCM6702 Internet Data Representation 1</td>
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<td>RCM6842 Advanced Topics in Software Engineering</td>
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<td>1 x Approved Elective</td>
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<td>RCM6102 Minor Thesis, or</td>
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<td>2 x Approved Electives, and</td>
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<td></td>
<td>RCM6103 Major Thesis</td>
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<td></td>
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</table>

PROGRESSION REGULATIONS
The School’s Academic Committees (Examiners’ Meetings) will, at the end of each semester, consider the results and progress of all students enrolled in the course. Progression is based on the following guidelines:
(i) Where any subject must be repeated, enrolment in that subject must be at the first opportunity following the initial failure.
(ii) Students will not normally be allowed to enrol in any subject for which at least a H3 grade has not been attained in any of the prerequisite subjects.

UNSATISFACTORY PROGRESS
These regulations should be read in conjunction with Victoria University’s Statute 6.4.1. – Unsatisfactory Progress. The following regulations apply to both full-time and part-time students.
(i) The following shall constitute unsatisfactory progress:
(a) failure in at least 50 per cent of the assessed subjects for which a student has enrolled in a semester of study,
(b) failure in any subject twice,
(c) transgression of a conditional enrolment stipulation and agreement.
(ii) Where a student’s progress is unsatisfactory, the School’s Academic Progress Committee may recommend the following:
(a) a restricted and conditional enrolment only be approved,
(b) exclusion from the course.
(iii) A student who wishes to appeal against the School’s written recommendation is required to do so in accordance with the University’s Statutes. The procedures to be followed in lodging a submission, hearing of submissions and communicating the results of hearings are set out in the University’s Statutes.
(iv) Excluded students have no right of re-admission to the course from which they were excluded. Students who have been excluded may apply for re-admission not less than one calendar year from the date of exclusion. The student must provide, with his or her application, evidence of changed circumstances which significantly improve the applicant’s likelihood of academic success.
SCHOOL OF ELECTRICAL ENGINEERING

The School of Electrical Engineering is the amalgamation of the former Department of Electrical and Electronic Engineering and the Department of Applied Physics. The School currently enrol some 30 PhD and Masters research students and more than 200 coursework Masters students. A major proportion of the School’s postgraduate students are from overseas. The School has world class research laboratories and facilities, especially in the Telecommunication, Microelectronics and Optical Technology areas. The School’s Centre for Mobile and Microelectronics is part of the Australian Telecommunication Collaborative Research Centre program.

The staff and students in the School of Electrical Engineering are active in the following research areas:

• mobile communications;
• optical technology;
• microelectronics;
• robotics;
• telecommunication;
• automation and energy systems.

POSTGRADUATE PROGRAMS BY RESEARCH

The School offers the following research degrees:

• Doctor of Philosophy;
• Master of Engineering;
• Master of Science.

Research topics compatible with the School’s experimental facilities and staff expertise are negotiated between student and supervisors. A number of research programs are available in the above areas. In addition, applicants with interests in similar areas are encouraged to discuss them with the School, telephone (03) 9919 4703.

MINIMUM STANDARDS OF ENTRY

Applicants should have formal qualifications and experience at least equivalent to an Australian four year Bachelor’s degree with Honours in an appropriate discipline. Applicants wishing to undertake a PhD who do not already possess a Master’s degree will normally be expected to enrol initially for a Master’s degree and will be considered for transfer to PhD candidature after one year of study.

All overseas applicants must provide evidence of proficiency in the English language:

• IELTS – an overall band score of 6.5, subject to individual profile; or
• TOEFL – a score of 580+, and a Test of Written English (TWE) score of 5.5.

PROGRAM DURATION

A full-time research Masters Degree will normally take up to two years and a PhD degree is likely to take a minimum of three years.

DOCTOR OF PHILOSOPHY

Course Code: EPHC, EPLC, EPOT

MASTER OF ENGINEERING (RESEARCH)

Course Code: ERIT, EROT

MASTER OF SCIENCE (RESEARCH)

Course Code: SRHC, SRLC, SROT

COURSE STRUCTURE

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<thead>
<tr>
<th>Course Code</th>
<th>Name</th>
<th>Semester</th>
<th>Credit Points</th>
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<tr>
<td>VEE8002</td>
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<tr>
<td>VEE8011</td>
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<tr>
<td>RPH8012</td>
<td>Research (Part Time)</td>
<td>2</td>
<td>24</td>
</tr>
</tbody>
</table>

Postgraduate Programs by Coursework

The School offers a range of coursework programs at postgraduate level:

Graduate Certificate in:

• Microelectronic Engineering;
• Systems and Control Engineering;
• Telecommunication Engineering;

Graduate Diploma in:

• Microelectronic Engineering;
• Systems and Control Engineering;
• Telecommunication Engineering;

Master of Engineering in:

• Electrical and Electronic Engineering;
• Microelectronic Engineering;
• Systems and Control Engineering;
• Telecommunication Engineering;

Master of Engineering Science in:

• Computer and Microelectronic Engineering;

Double Degrees:

• Master of Engineering in Microelectronic Engineering Master of Engineering Science in Computer and Microelectronic Engineering

PROGRESSION REGULATIONS

These regulations should be read in conjunction with Victoria University’s Statute 6.4.1.– Unsatisfactory Progress.

(i) The following shall constitute unsatisfactory progress:

(a) failure in at least 50 per cent of the assessed subjects for which a student has enrolled in a semester of study,
(b) failure in any subject twice,
(c) transgression of a conditional enrolment stipulation and agreement.
(ii) Where a student’s progress is unsatisfactory, the Departmental Academic Progress Committee may recommend the following:
(a) a restricted and conditional enrolment only be approved,
(b) exclusion from the course.
(iii) A student who wishes to appeal against the Department’s written recommendation is required to do so in accordance with the University’s Statutes. The procedures to be followed in lodging a submission, hearing of submissions and communicating the results of hearings are set out in the University’s Statutes.
(iv) Excluded students have no right of re-admission to the course from which they were excluded. Students who have been excluded may apply for re-admission not less than one calendar year from the date of exclusion. The student must provide, with his or her application, evidence of changed circumstances which significantly improve the applicant’s likelihood of academic success.

SUPPLEMENTARY ASSESSMENT

(i) Supplementary assessment is not normally available in any subject or course of the School, other than for reasons of Special Consideration of Illness or other cause.
(ii) In special circumstances the Head of School may authorise supplementary assessment in one or more subjects.
(iii) Supplementary assessment may be initiated by a subject Examination Board or the School, where appropriate special grounds are seen to exist.
(iv) Supplementary assessment will require application, authorisation, and the payment of fees as defined by the School from time to time.

GRADUATE CERTIFICATE IN MICROELECTRONIC ENGINEERING
Course Code: ETMI

GRADUATE DIPLOMA IN MICROELECTRONIC ENGINEERING
Course Code: EGMI

MASTER OF ENGINEERING IN MICROELECTRONIC ENGINEERING
Course Code: EMMI

The major role of professional engineers in the Australian workforce is to act as agents for change through the development of technically sound, economically viable and socially acceptable solution to complex and new technical problems.

In this context, the microelectronics engineer today is faced with many challenges brought about by the rapid advances in computer, multimedia and telecommunication technology. The Master of Engineering course in Microelectronic Engineering addresses all aspects of this technology, from high level specification of microelectronic systems, through implementation alternatives, and the effective use of design tools, to realisation of integrated circuits. The course aims to produce engineers with the necessary skills and practical experience to satisfy the requirements of the microelectronics industry. An important feature of the course is the opportunity it provides for the students to design their own integrated circuits.

The Chipskills program is a Victorian Government initiative that seeks to develop a range of professional and vocational training programs in areas relevant to the semiconductor industry. The project involves Victoria University, RMIT University, Industry and Victorian State Government.

Development and delivery of this course is shared between each of the partner universities.

COURSE OBJECTIVES

The general aims of the course are to provide graduates with:

(a) high levels of both logical and lateral thinking development so that the graduates can lead constructive change through innovation;
(b) the ability to use a multi-disciplinary engineering philosophy towards the synthesis, design and integration of solutions; and
(c) a level of professional development in confidence, judgement and experience such that the implementation of proposed solutions proceeds successfully.

The specific aims of the course are to:

(a) develop integrated circuit design expertise in embedded systems, digital, mixed signal and system-on-chip systems design and verification;
(b) develop a basic understanding of the device physics, the fabrication process and the testing to the level needed by IC designers;
(c) develop the advanced technical and algorithmic skills necessary to master state of the art microelectronic technology;
(d) develop research skills necessary to obtain specialist knowledge of issues pertinent to integrated circuit design;
(e) cultivate logical and lateral thinking that leads to creation and innovation in the pursuit of solutions to engineering problems.

ADMISSION REQUIREMENTS

Admission to the course normally requires a four year Bachelor of Engineering degree in Electronic Engineering or Computer Engineering or Communication/Telecommunication Engineering or a four-year Bachelor of Science (Honours) degree in an appropriate field, or an equivalent qualification.

Applicants with a three year Bachelor of Science degree (in appropriate field) or a Bachelor of Engineering degree in another field may also be considered for admission on the condition that they may be required to take additional (preliminary) subjects that will strengthen their knowledge and skills in digital systems, analog electronics and microprocessor systems.

Full fee paying international students must have qualifications which are equivalent to those listed above. In addition they must provide evidence of proficiency in the English language as assessed by:

- IELTS – an overall band score of 6.5, subject to individual profile; or
- TOEFL – a score of 580, and a Test of Written English (TWE) score of 5.5.

A panel comprising of academics from each of the partner universities will carry out student selection into this course.

COURSE DURATION

The duration of the course, in normal mode of delivery, is one and a half years full-time or part-time equivalent for Masters course.
COURSE STRUCTURE
The Master of Engineering course is structured to allow students to exit at different academic levels with either, Graduate Certificate, Graduate Diploma or Master of Engineering qualifications. The completion of the Graduate Certificate in Microelectronic Engineering requires successful completion of four units, Graduate Diploma in Microelectronic Engineering requires successful completion of either eight units or six units and minor project, and Master of Engineering in Microelectronic Engineering requires successful completion of either eight units and major project or ten units and minor project.

YEAR 1

Core Units
- VEH6002 Integrated Circuit Design 12
- VEH6003 EDA tools and Design Methodology 12
- JRM6001 HDL and High Level Synthesis 12
- JRM6013 Project Management and Entrepreneurship 12

Electives
- JRM6005 Embedded Systems Design 12
- JRM6006 Emerging Topics in IC Design 12
- JRM6010 Introduction to Microsystems Technology 12
- JRM6011 Introduction to Semiconductor Device Fabrication 12
- JRM6012 Semiconductor Device Physics 12
- JRM6015 Special Electives* 12
- VEH6004 Digital System Design 12
- VEH6007 Advanced VLSI Design 12
- VEH6008 VLSI Digital Signal Processing Systems 12
- VEH6009 Reliability and Testability in IC Design 12
- VEH6014 RF Design 12
- VEH6015 Special Electives* 12
- VEH6016 Verilog HDL 12
- VEH6017 Digital System Design with Verilog 12
- VEH6018 Analog & Mixed Signal Design 12
- VEH6020 Minor Project 24
- VEH6030 Major Project 48

*Note: All Special Electives for Chipskills program are to be approved by the Course Directors (RMIT & VU).

ASSESSMENT
Assessment will be a combination of written assignments, tests, laboratory work, project work and examinations. Supplementary assessment is not normally available in any unit except at the discretion of the Head of School/Department of the University offering the unit and under exceptional circumstances.
VEA6312 Model Based Process Control 12
VEA6322 Process Instrumentation and Control 12
VEA6332 Electronic Control of Motors 12
VEA6342 Power Distribution Systems 12
VEA6352 Digital Simulation of Protection Systems 12

Projects
VEA6350 Minor Project 24
VEA6300 Major Project 48

ASSESSMENT
Assessment will be based on a combination of written assignments, laboratory exercises, project work, and formal examinations. Supplementary assessments are not normally available.

GRADUATE CERTIFICATE IN TELECOMMUNICATION ENGINEERING
Course Code: ETTT

GRADUATE DIPLOMA IN TELECOMMUNICATION ENGINEERING
Course Code: EGTE

MASTER OF ENGINEERING IN TELECOMMUNICATION ENGINEERING
Course Code: EMTT

COURSE OBJECTIVES
The objective of the course is to provide opportunities for suitably qualified persons to acquire skills and expertise necessary to undertake research and development in the field of telecommunication engineering.

ADMISSION REQUIREMENTS
Admission to the course requires a four year Bachelor of Engineering degree in Electrical & Electronic Engineering, or an equivalent.

Full-fee paying international students are required to have qualifications equivalent to above, and in addition, they must provide evidence of proficiency in English Language, as assessed by: (a) International English Language Testing System – an overall band score of 6+ subject to individual profile, or, (b) Test of English as a Foreign Language – a score of 550+, and a Test of Written English score of 5+.

COURSE DURATION
The duration of the course, in normal mode of delivery, is one and a half year for Master of Engineering, one year for Graduate Diploma, and a half year for Graduate Certificate.

COURSE STRUCTURE
The course is unit based and consists of two core subjects (each of one unit), a set of elective subjects (each of one unit), a minor project (of two units), and a major project (of four units). A unit is worth 12 credit points.

The eligibility for the Graduate Certificate requires the successful completion of the two core subjects and two elective subjects.

The eligibility for the Graduate Diploma requires the successful completion of either (a) the two subjects and six elective subjects, or (b) the two core subjects, four elective subjects, and a minor subject.

The eligibility for the Master of Engineering requires the successful completion of either (a) the two core subjects, eight elective subjects, and a minor project, or (b) the two core subjects, six elective subjects, and a major project.

The minor project may be substituted with the project subjects.

Credit Points

Core Subjects

VET6510 Communication Theory 12
VET6520 Digital Communication Principles 12

Elective Subjects

VET6511 Data Network Analysis and Design 12
VET6521 Digital Switching and Signalling Systems 12
VET6531 Wireless Communication Subsystems 12
VET6541 Multimedia and Internet Technology 12
VET6551 Microwave Electronic Circuit Design 12
VET6561 Local Area and Broadband Networks 12
VET6512 Intelligent Networks and Network Management 12
VET6522 Telecommunication Tariff Structures and Teletraffic Engineering 12
VET6532 Microwave and Satellite Communication Systems 12
VET6542 Mobile and Personal Communication Systems 12
VET6552 Computer Networks and Networking Software 12
VET6562 Digital Signal Processing 12

Project Subjects

VET6501 Communication System Modelling and Simulation 1 12
VET6502 Communication System Modelling and Simulation 2 12

Projects

VET6550 Minor Project 24
VET6500 Major Project 48

ASSESSMENT
Assessment will be based on a combination of written assignments, laboratory exercises, project work, and formal examinations. Supplementary assessments are not normally available.

MASTER OF ENGINEERING IN ELECTRICAL AND ELECTRONIC ENGINEERING
Course Code: EMEE

The Master of Engineering in Electrical and Electronic Engineering (Coursework) was introduced in 1988 and was revised in 2004. The course is application oriented and is intended for those who aspire to senior technical positions in various specialised areas of Electrical and Electronic Engineering.

COURSE OBJECTIVES
The objective of the course is to provide opportunity for practising electrical and electronic engineers to:

- broaden their technological base from their first degree to a chosen area of specialisation;
- obtain an in-depth understanding of the relevant theoretical principles involved in the chosen area of specialisation;
- develop skills necessary to carry out independent research and development work related to the chosen areas of specialisation;
- acquire expertise and keep abreast with the latest developments in the chosen area of specialisation.
ADMISSION REQUIREMENTS
Admission to the course requires a four year Bachelor of Engineering degree in Electrical & Electronic Engineering, or an equivalent.

Full-fee paying international students are required to have qualifications equivalent to above, and in addition, they must provide evidence of proficiency in English Language, as assessed by: (a) International English Language Testing System – an overall band score of 6+ subject to individual profile, or, (b) Test of English as a Foreign Language – a score of 550+, and a test of Written English score of 5+.

COURSE DURATION
The duration of the course, in normal mode of delivery, is two years for full-time students and a part-time equivalent for part-time students.

COURSE STRUCTURE
The course is unit based and offers a range of study units comprising of core and elective subjects (each of one unit) in a chosen area of specialisation, a research project (of four units), and a project management program (of four units). A unit is worth 12 credit points. The completion of the course requires the completion of 16 units comprising of four core subjects in a chosen area of specialisation, four elective subjects in the chosen area of specialisation, four other units at Masters level from any Masters programs, and, either a research project in the chosen area of specialisation, or the project management program.

AUTOMATION ENGINEERING SPECIALISATION

<table>
<thead>
<tr>
<th>Core Subjects</th>
<th>Credit Points</th>
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<tbody>
<tr>
<td>VEA6311 Modelling and Computer Control</td>
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</tr>
<tr>
<td>VEA6312 Model Based Process Control</td>
<td>12</td>
</tr>
<tr>
<td>VEA6313 Fuzzy and Neural Control</td>
<td>12</td>
</tr>
<tr>
<td>VEA6322 Process Instrumentation and Control</td>
<td>12</td>
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<table>
<thead>
<tr>
<th>Elective Subjects</th>
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<tbody>
<tr>
<td>VEA6331 Robotics and Programmed Control</td>
<td>12</td>
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<tr>
<td>VEA6332 Electronic Control of Motors</td>
<td>12</td>
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<tr>
<td>VEA6341 Measurement Technology</td>
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<tr>
<td>VEA6342 Power Distribution Systems</td>
<td>12</td>
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<tr>
<td>VEA6351 Power Systems Operation and Control</td>
<td>12</td>
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<tr>
<td>VEA6352 Digital Simulation of Protection Systems</td>
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COMPUTER ENGINEERING SPECIALISATION

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<tr>
<td>VEC6111 Computer Technology</td>
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<tr>
<td>VEC6112 Advanced Microprocessors</td>
<td>12</td>
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<tr>
<td>VEC6121 object Oriented Software</td>
<td>12</td>
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<td>VEC6122 Operating Systems &amp; Multiprocessing</td>
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<table>
<thead>
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<th>Elective Subjects</th>
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<td>VEC6132 Digital System Modelling and Simulation</td>
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<td>VEC6141 Software Engineering</td>
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<td>VEC6142 Managing Software Projects</td>
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<td>VEC6151 Data Base and Query Systems</td>
<td>12</td>
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<td>VEC6152 Applied Knowledge Systems</td>
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PHOTONIC ENGINEERING SPECIALISATION

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<td>VPP6512 Advanced Fibre Optics</td>
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<tr>
<td>VPP6521 Optics and Lasers</td>
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<tr>
<td>VPP6522 Digital Communication over Optical Networks</td>
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<table>
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<td>VPP6532 Optical Fibre Sensors</td>
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<td>VPP6541 Optical Materials</td>
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<td>VPP6542 Data Acquisition</td>
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TELECOMMUNICATION ENGINEERING SPECIALISATION

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<tr>
<td>VET6502 Communication System Modelling &amp; Simulation 2</td>
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<td>VET6510 Communication Theory</td>
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<tr>
<td>VET6520 Digital Communication Principles</td>
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<table>
<thead>
<tr>
<th>Elective Subjects</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET6511 Data Network Analysis &amp; Design</td>
<td>12</td>
</tr>
<tr>
<td>VET6512 Intelligent Networks &amp; Network Management</td>
<td>12</td>
</tr>
<tr>
<td>VET6521 Digital Switching and Signalling Systems</td>
<td>12</td>
</tr>
<tr>
<td>VET6522 TelecomTariffs and Teletraffic Engineering</td>
<td>12</td>
</tr>
<tr>
<td>VET6531 Wireless Communication Subsystems</td>
<td>12</td>
</tr>
<tr>
<td>VET6532 Microwave &amp; Satellite Communication Systems</td>
<td>12</td>
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<tr>
<td>VET6541 Multimedia &amp; Internet Technology</td>
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<tr>
<td>VET6542 Mobile &amp; Personal Communication Systems</td>
<td>12</td>
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<tr>
<td>VET6551 Microwave Electronic Circuit Design</td>
<td>12</td>
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<tr>
<td>VET6552 Computer Networks &amp; Networking Software</td>
<td>12</td>
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<tr>
<td>VET6561 Local Area &amp; Broadband Networks</td>
<td>12</td>
</tr>
<tr>
<td>VET6562 Digital Signal Processing</td>
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<table>
<thead>
<tr>
<th>Project Subjects</th>
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</thead>
<tbody>
<tr>
<td>VEE6000 Research Project</td>
<td>60</td>
</tr>
<tr>
<td>VEE6050 Project Management Program</td>
<td>60</td>
</tr>
</tbody>
</table>

ASSESSMENT
Assessment will be based on a combination of written assignments, laboratory and project works, and formal examinations and presentations. Supplementary assessments are not normally available.

MASTER OF ENGINEERING SCIENCE IN COMPUTER & MICROELECTRONIC ENGINEERING (COURSEWORK)

Course Code: EMCE

COURSE OBJECTIVES
The computer systems engineer today is faced with many challenges brought about by the rapid advances in computer multimedia and telecommunication technology. The recent development of computer systems engineering has already established a firm foundation for a need of qualified engineers in this high technology industry.
The Master of Engineering Science course in Computer Systems Engineering addresses all aspects of this technology. From high level specification of computer and microelectronic systems, through implementation alternatives, to realisation of chips and also introduces students to the anticipated demands of Information Technology in the twenty-first century. Course material is drawn from a variety of backgrounds and includes: Integrated Circuit Design Methodologies, Digital and Analog Circuit Design, and Computer System Design and Implementation. The course aims to produce engineers with the necessary skills and practical experience to satisfy the requirements of the microelectronics industry. An important feature of the course is the opportunity it provides for the students to design their own integrated circuits. The specific aims of the course are to: provide an integrated foundation for electrical disciplinary studies and course specialisation into the area of Computer Systems Engineering; develop the advanced technical skills necessary to master state of the art microelectronic technology; develop research skills necessary to obtain specialist knowledge of subjects pertinent to a given field of study; cultivate logical and lateral thinking that leads to creation and innovation in the pursuit of solutions to engineering problems.

ADMISSION REQUIREMENTS
Admission to the course requires a four-year Bachelor of Engineering degree in Electrical & Electronic Engineering or a four year Bachelor of Applied Science (Honours) degree in an appropriate field, or an equivalent. Applicants with a three-year Bachelor of Applied Science degree (in an appropriate field) or a Bachelor of Engineering degree in another field may also be considered for admission on the condition that they may be required to complete some preliminary subjects that will strengthen their knowledge and skills in Computer Systems Microelectronic Engineering.

Full-fee paying international students are required to have qualifications equivalent to those above, and in addition, they must provide evidence of proficiency in English Language, as assessed by:

- IELTS – an overall band score of 6.5, subject to individual profile; or
- TOEFL – a score of 580, and a Test of Written English (TWE) score of 5.5.

COURSE DURATION
The course is of one-year duration for full-time students and a part-time equivalent for part-time students.

COURSE STRUCTURE
The course is unit based and consists of research projects (2 units), a core unit and elective subjects. The completion of the course requires successful completion of two units of research project, the core unit and at least five units of elective subjects of which at least three must be from Computer and Microelectronics Engineering disciplines.

<table>
<thead>
<tr>
<th>Project Subjects</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEH6101 ASIC Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6102 Custom IC Design A</td>
<td>12</td>
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<table>
<thead>
<tr>
<th>Core Subject</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEH6003 EDA Tools and Design Methodology</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Subjects</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEH6002 Integrated Circuit Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6003 EDA tools and Design Methodology</td>
<td>12</td>
</tr>
<tr>
<td>VEH6004 Digital System Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6007 Advanced VLSI Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6008 VLSI Digital Signal Processing Systems</td>
<td>12</td>
</tr>
<tr>
<td>VEH6009 Reliability and Testability in IC Design</td>
<td>12</td>
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</tbody>
</table>

VEH6014 RF Design 12
VEH6015 Special Electives* 12
VEH6016 Verilog HDL 12
VEH6017 Digital System Design with Verilog 12
VEH6018 Analog & Mixed Signal Design 12
VEH6111 Digital Circuit Design 12
VEH6121 Basic IC Design/Devices 12
VEH6122 Custom IC Design A 12
VEH6132 Integrated Circuit Testability 12
VEH6142 Emerging Technologies 12
VEH6151 VHDL and High Level Synthesis 12
VEH6152 Advanced Microprocessors 12

plus other discipline electives as approved by the course co-ordinator.

ASSESSMENT
Assessment will be based on a combination of written assignments, laboratory exercises, project works, tests, and examinations.

MASTER OF ENGINEERING IN MICROELECTRONIC ENGINEERING/MASTER OF ENGINEERING SCIENCE IN COMPUTER AND MICROELECTRONIC ENGINEERING

Double Degree
Course Code: EMMC

The major role of professional engineers in the Australian workforce is to act as agents for change through the development of technically sound, economically viable and socially acceptable solution to complex and new technical problems.

In this context, the microelectronics engineer and/or the computer systems engineer today is faced with many challenges brought about by the rapid advances in computer, multimedia and telecommunication technology. The double degree in Master of Engineering in Microelectronics Engineering & Master of Engineering Science in Computer and Microelectronic Engineering course addresses all aspects of this technology, from high level specification of microelectronic and computer systems, through implementation alternatives, and the effective use of design tools, to realisation of integrated circuits and advanced computer architectures. The course aims to produce engineers with the necessary skills and practical experience to satisfy the requirements of the microelectronics and the computer systems industry.

COURSE OBJECTIVES
The general aims of the course are to provide graduates with:

(a) high levels of both logical and lateral thinking development so that the graduates can lead constructive change through innovation;

(b) the ability to use a multi-disciplinary engineering philosophy towards the synthesis, design and integration of solutions; and

(c) a level of professional development in confidence, judgement and experience such that the implementation of proposed solutions proceeds successfully.

The specific aims of the course are to:

(a) develop integrated circuit design expertise in embedded systems, digital, mixed signal and system-on-chip systems design and verification, and advanced computer systems architecture

(b) develop a basic understanding of the device physics, the fabrication process and the testing to the level needed by IC designers and computer systems engineers;
(c) develop the advanced technical and algorithmic skills necessary to master state of the art microelectronic technology and computer system;
(d) develop research skills necessary to obtain specialist knowledge of issues pertinent to integrated circuit design and computer systems;
(e) cultivate logical and lateral thinking that leads to creation and innovation in the pursuit of solutions to engineering problems.

ADMISSION REQUIREMENTS
Admission to the course normally requires a four year Bachelor of Engineering degree in Electronic Engineering or Computer Engineering or Communication/Telecommunication Engineering or a four year Bachelor of Science (Honours) degree in an appropriate field, or an equivalent qualification.

Applicants with a three year Bachelor of Science degree (in appropriate field) or a Bachelor of Engineering degree in another field may also be considered for admission on the condition that they may be required to take additional (preliminary) subjects that will strengthen their knowledge and skills in digital systems, analog electronics and microprocessor systems.

Full fee paying international students must have qualifications which are equivalent to those listed above. In addition they must provide evidence of proficiency in the English language as assessed by:
- IELTS – an overall band score of 6.5, subject to individual profile;
- TOEFL – a score of 580, and a Test of Written English (TWE) score of 5.5.

A panel comprising of academics from the university will carry out student selection into this course.

COURSE DURATION
The duration of the double degree, in normal mode of delivery, is two years full-time or part-time equivalent.

COURSE STRUCTURE
The double degree in Master of Engineering in Microelectronics Engineering & Master of Engineering Science in Computer and Microelectronic Engineering course is structured to allow students to exit at five different academic levels with either, Graduate Certificate, Graduate Diploma, Master of Engineering Science (Computer & Microelectronic Engineering), Master of Engineering (Microelectronic Engineering) or Double Degree – Master of Engineering (Microelectronic Engineering)/Master of Engineering Science (Computer & Microelectronic Engineering) qualifications.

The completion of the Graduate Certificate in Microelectronic Engineering requires successful completion of four units, Graduate Diploma in Microelectronic Engineering requires successful completion of either four core units and four microelectronics electives or six units (of which at least four are microelectronic electives) and minor project, Master of Engineering Science (Computer & Microelectronic Engineering) requires successful completion of four core units and four microelectronics electives, Master of Engineering (Microelectronic Engineering) requires successful completion of either four core unit, six microelectronics electives and a minor project or four core units, four microelectronics electives and a major project. The Double Degree – Master of Engineering (Microelectronic Engineering)/Master of Engineering Science (Computer & Microelectronic Engineering) requires successful completion of either four core unit, six microelectronics electives, four computer systems electives and a minor project or four core units, four microelectronics electives, four computer systems electives and a major project.

<table>
<thead>
<tr>
<th>Core Units</th>
<th>Credit Points</th>
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<tbody>
<tr>
<td>JRM6001 HDL and High Level Synthesis</td>
<td>12</td>
</tr>
<tr>
<td>JRM6013 Project Management &amp; Entrepreneurship</td>
<td>12</td>
</tr>
<tr>
<td>VEH6002 Integrated Circuit Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6003 EDA tools and Design Methodology</td>
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<table>
<thead>
<tr>
<th>Microelectronics Elective Subjects</th>
<th>Credit Points</th>
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</thead>
<tbody>
<tr>
<td>JRM6005 Embedded Systems Design</td>
<td>12</td>
</tr>
<tr>
<td>JRM6006 Emerging Topics in IC Design</td>
<td>12</td>
</tr>
<tr>
<td>JRM6010 Introduction to Microsystem Technology</td>
<td>12</td>
</tr>
<tr>
<td>JRM6011 Introduction to Semiconductor Device Fabrication</td>
<td>12</td>
</tr>
<tr>
<td>JRM6012 Semiconductor Device Physics</td>
<td>12</td>
</tr>
<tr>
<td>VEH6007 Advanced VLSI Design</td>
<td>12</td>
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<tr>
<td>VEH6008 VLSI Digital Signal Processing Systems</td>
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<tr>
<td>VEH6009 Reliability and Testability in IC Design</td>
<td>12</td>
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<tr>
<td>VEH6014 RF Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6018 Analog and Mixed Signal Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6102 Custom IC Design B</td>
<td>12</td>
</tr>
<tr>
<td>VEH6111 Digital Circuit Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6121 Basic IC Design/Devices</td>
<td>12</td>
</tr>
<tr>
<td>VEH6132 Integrated Circuit Testability</td>
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<table>
<thead>
<tr>
<th>Computer Elective Subjects</th>
<th>Credit Points</th>
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<tbody>
<tr>
<td>VEH6004 Digital System Design</td>
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</tr>
<tr>
<td>VEH6005 Embedded Systems Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6016 Verilog and High Level Synthesis</td>
<td>12</td>
</tr>
<tr>
<td>VEH6017 Verilog Digital System Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6101 ASIC Design</td>
<td>12</td>
</tr>
<tr>
<td>VEH6122 Custom IC Design A</td>
<td>12</td>
</tr>
<tr>
<td>VEH6142 Emerging Technologies</td>
<td>12</td>
</tr>
<tr>
<td>VEH6151 VHDL and High Level Synthesis</td>
<td>12</td>
</tr>
<tr>
<td>VEH6152 Advanced Microprocessor</td>
<td>12</td>
</tr>
</tbody>
</table>

ASSESSMENT
Assessment will be a combination of written assignments, tests, laboratory work, project work and examinations. Supplementary assessment is not normally available in any unit except at the discretion of the Head of School/Department of the University offering the unit and under exceptional circumstances.
SCHOOL OF HEALTH SCIENCES

The School of Health Sciences provides educational opportunities for graduates and other suitably qualified health professionals. The School of Health Sciences has excellent facilities and experienced staff and has developed considerable research expertise. The School of Health Sciences has been particularly proactive in developing cross-discipline research with other Faculty Schools and in establishing projects specific to the needs of its local community. Three major disciplines are represented in the School of Health Sciences; these are Osteopathic Medicine, Paramedic Sciences, and Chinese Medicine.

COURSE OFFERINGS
In 2006, the School of Health Sciences will offer the following postgraduate programs:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Program Type</th>
<th>Campus</th>
<th>Full-time</th>
<th>Part-time</th>
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<tbody>
<tr>
<td>HGCT</td>
<td>Graduate Diploma in Complementary Therapies</td>
<td>Y Y Y</td>
<td>City Flinders Lane St Albans Internet Internet Internet</td>
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<td></td>
</tr>
<tr>
<td>HGCM</td>
<td>Graduate Diploma in Clinical Chinese Medicine</td>
<td>C n/a Y</td>
<td>City Flinders Lane St Albans Internet Internet Internet</td>
<td></td>
<td></td>
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<td>HGCT</td>
<td>Master of Health Science</td>
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<td>HGCT</td>
<td>Doctor of Philosophy</td>
<td>S Y Y</td>
<td>City Flinders Lane St Albans Internet Internet Internet</td>
<td></td>
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</tbody>
</table>

GRADUATE DIPLOMA IN CLINICAL CHINESE MEDICINE
Course Code: HGCM

COURSE OBJECTIVES
The aims of the course are to:

- provide an opportunity for students to revise and consolidate their clinical knowledge in Chinese Medicine;
- develop and extend students' existing clinical experience;
- further students' knowledge of research design and methodology; and
- further students' knowledge of and skills in health counselling.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must have successfully completed a three year Diploma in either Acupuncture or Chinese Herbal Medicine (including the relevant biomedical sciences) from a formal Chinese Medicine program; or equivalent.

COURSE DURATION
The course is offered over one year on a full-time or part-time equivalent.

COURSE STRUCTURE
Students will complete 5 core subjects and will choose either Acupuncture or Chinese Herbal Medicine as their specialisation.

GRADUATE DIPLOMA IN COMPLEMENTARY THERAPIES
Course Code: HGCT
(This course is currently under review.)

COURSE OBJECTIVES
The course aims to provide students with the opportunity to:

- explore a range of conceptual and practical approaches to health and healing;
- develop innovative approaches to assisting individuals and groups in the healing process;
- develop skills in planning, implementing and evaluating complementary medicine and healing therapies;
- develop competence in a range of complementary medicine and healing therapies; and
- critically appraise a range of complementary medicine and healing therapies.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must hold an undergraduate degree, or equivalent qualification, in health, social sciences or education.
Applicants who, in pursuit of their occupation, or by other means recognised and approved by the School, can demonstrate their ability to undertake successful study at a postgraduate level may also apply for entry to the course.

COURSE DURATION
The course is offered over two years on a part-time basis. Full-time study may be available depending on demand.

COURSE STRUCTURE

### Year One

<table>
<thead>
<tr>
<th>Semester One</th>
</tr>
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<tbody>
<tr>
<td>HHG5115 Philosophical Concepts of Healing</td>
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<tr>
<td>HHG5125 Theoretical Foundations of Healing 1</td>
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<table>
<thead>
<tr>
<th>Semester Two</th>
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<tbody>
<tr>
<td>HHG5135 Healing 1: Colour, Sound and Movement</td>
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<tr>
<td>HHG5145 Theoretical Foundations of Healing 2</td>
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**Total Year One**

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Points</th>
<th>Hours per week</th>
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</thead>
<tbody>
<tr>
<td>48</td>
<td>156</td>
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</table>

### Year Two

<table>
<thead>
<tr>
<th>Semester One</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHG5245 Healing 2: Tactile Therapies</td>
</tr>
<tr>
<td>HHR0001 Introduction to Research Design and Methods</td>
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</table>

<table>
<thead>
<tr>
<th>Semester Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHG5255 Healing 3: Approaches to Healing Skills</td>
</tr>
<tr>
<td>HHG5265 Research Project</td>
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**Total Year Two**

<table>
<thead>
<tr>
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<th>Points</th>
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**Course Total**

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</tr>
</thead>
<tbody>
<tr>
<td>96</td>
<td>324</td>
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</table>

## MASTER OF HEALTH SCIENCE – OSTEOPATHY

Course Code: HMOS

### COURSE OBJECTIVES
The aims of this course are to equip graduates with:
- the diagnostic skills required by a primary health care practitioner;
- the ability to assess the health status of the patient, including physical, socio-economic and psychological aspects;
- the ability to formulate and prescribe a suitable and safe treatment program;
- skills in a full range of osteopathic techniques;
- an awareness of the application of osteopathic principles relevant to patient management;
- the ability to interact with other health care providers and advisers for the benefit of the patient, including an awareness of the need to gain informed consent;
- communication skills related to the patient and other persons, to maintain inter-professional co-operation and respect;
- an awareness of the cost effectiveness of osteopathic treatment;
- an awareness of the support systems that are available and an ability to take part in a multi-practitioner research program;
- an awareness of the need for continuing self education;
- clinical proficiency and an ability to manage all aspects of osteopathic patient care; and
- an awareness of their professional and personal responsibilities and an ability to effectively organise and manage their working environment.

### ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must have satisfactorily completed the Bachelor of Science – Clinical Sciences, or equivalent.

Students will be required to undergo a Victoria Police check before commencing clinical placement units. Police checks need to be conducted annually throughout the programme. Prospective and continuing students should be aware that not passing relevant police checks may restrict access to clinical placements necessary for graduation.

At the commencement of the course students must complete the Level 2 First Aid Certificate update.

### COURSE DURATION
The course is offered over two years on a full-time basis.

### COURSE STRUCTURE

<table>
<thead>
<tr>
<th>Semester One</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHD4185 Clinical Diagnosis &amp; Management 5</td>
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<tr>
<td>HHI4181 Research 1</td>
</tr>
<tr>
<td>HHO4187 Osteopathic Science 7</td>
</tr>
<tr>
<td>HHG4183 Psychology &amp; Social Science 3</td>
</tr>
<tr>
<td>HHU4187 Clinical Practicum 7</td>
</tr>
</tbody>
</table>
Semester Two
HHD4286 Clinical Diagnosis & Management 6 12 6
HHL4282 Research 2 12 5
HHO4288 Osteopathic Science 8 8 5
HHU4288 Clinical Practicum 8 210*
HHY4285 Pathology 5 8 2
**Total Year One** 96 788

Year Two
Semester One
HHD5187 Clinical Diagnosis & Management 7 12 10
HHL5183 Research 3 12 5
HHO5189 Osteopathic Science 9 12 5
HHU5189 Clinical Practicum 9 219*
Semester Two
HHD5288 Clinical Diagnosis & Management 8 12 7
HHL5284 Research 4 12 5
HHO5280 Osteopathic Science 10 12 7
HHU5280 Clinical Practicum 10 219*
**Total Year Two** 96 802
**Course Total** 192

*Total Semester Hours for Unit
Check subject details with course co-ordinator.

**CLINICAL PRACTICUM**
Clinical practicum is direct student/patient contact supervised by registered osteopaths and medical practitioners. In order to register as an osteopath, students must complete the minimum attendance requirements for clinical units over the full five years of the combined Bachelor of Science–Clinical Sciences and Master of Health Science–Osteopathy courses. This will be achieved cumulatively by an increasing commitment of time to clinically based learning as students progress through the course and their clinical skills increase. Clinical practicum during the Master degree consists of 324 hours in year one and 412 hours in year two (including holiday hours and external placement).

As the teaching clinics are required to operate 50 weeks per year, in order to maintain a public service and provide essential continuity of patient care, students will be expected to supplement any deficit in clinical practicum hours outside semester hours. The arrangement of clinical hours will be flexible and may vary from year to year dependent upon resources, patient availability and student development.

During the clinical practicum students will develop and enhance the following skills within the supervised clinical setting: interpersonal and communication skills; history taking; general observation; clinical methods; general medical and osteopathic examination; data analysis and interpretation; pathological diagnosis; radiological diagnosis; special investigations; osteopathic treatment and management; and professional behaviour and ethics.

**PROFESSIONAL RECOGNITION**
Registration and regulation of osteopaths is a function of State Registration Boards in a similar way to the regulation of other health professions such as medicine and dentistry. Graduates of this course will be eligible to apply to be registered as osteopaths in Victoria. The course also has the support of the Australian College of Physical Medicine.

**MASTER OF HEALTH SCIENCE**
**(BY MINOR THESIS)**
Course Code: HHHM

This course will appeal to health practitioners from a variety of disciplines who have a desire to further studies via a minor thesis in their particular area of practice.

These areas may include:
- Ambulance Services;
- Community Health;
- Emergency Services;
- Health Sciences;
- Mental Health Workers;
- Paramedic Sciences;
- Sociology of Health;
- Tactile Therapies;
- Culture Issues in Health;
- Gerontology – Aged Care Services; and
- Women’s Health.

**COURSE OBJECTIVES**
The aims of the course are to:
- provide opportunities for students to extend their knowledge and enable ongoing critical analysis of primary health care;
- encourage students’ further investigation and reflection in a specific area of professional interest; and
- enhance students’ ability to apply research knowledge in a collegial environment.

**ADMISSION REQUIREMENTS**
To qualify for admission to the course applicants must have satisfactorily completed, at an average grade level of second class honours [H2], a Graduate Diploma in Health Sciences, or equivalent, as approved by the School of Health Sciences.

**COURSE DURATION**
The course is offered over one year on a full-time basis or part-time equivalent.

**COURSE STRUCTURE**

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Credit</th>
<th>Points</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>HFR0001 Advanced Quantitative Research Methods</td>
<td>16</td>
<td>39</td>
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<tr>
<td></td>
<td>HFR0002 Advanced Qualitative Research Methods</td>
<td>16</td>
<td>39</td>
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<tr>
<td></td>
<td>HHT1127 Minor Thesis [full-time]</td>
<td>32</td>
<td>117</td>
</tr>
<tr>
<td>Semester Two</td>
<td>HHT1137 Minor Thesis [full-time]</td>
<td>48</td>
<td>156</td>
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<td></td>
<td><strong>Course Total</strong></td>
<td><strong>96</strong></td>
<td><strong>588</strong></td>
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</table>

**Part-time**

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Credit</th>
<th>Points</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>HFR0001 Advanced Quantitative Research Methods</td>
<td>16</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>HFR0002 Advanced Qualitative Research Methods</td>
<td>16</td>
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<tr>
<td></td>
<td>HHT1147 Minor Thesis [part-time]</td>
<td>8</td>
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<td>HHT1158 Minor Thesis B [part-time]</td>
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<tr>
<td></td>
<td>HHT1159 Minor Thesis C [part-time]</td>
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<td></td>
<td><strong>Course Total</strong></td>
<td><strong>96</strong></td>
<td><strong>222</strong></td>
</tr>
</tbody>
</table>
MASTER OF HEALTH SCIENCE
(BY RESEARCH)
Course Code: HRNS
The School of Health Sciences offers the Master of Health Science (by Research). Staff are able to supervise research projects in a broad range of health and related areas, some of which are listed below. It is suggested that applicants explore their research interests with the Course Co-ordinator and contact with appropriate staff will be facilitated. A thesis on an approved topic will be required.

AREAS OF SPECIALISATION
• Acupuncture;
• Ambulance Services;
• Chinese Herbal Medicine;
• Clinical Practice;
• Complementary Therapies;
• Cultural Issues and Health;
• Emergency Services;
• Health Administration;
• Health Counselling;
• Health Education;
• Natural Medicine;
• Osteopathic Medicine;
• Rehabilitation;
• Traditional Chinese Medicine
• Chinese Medicine;
• Western Herbal Medicine;
• Women’s Health.

COURSE DURATION
The course normally requires two years of full-time study or part-time equivalent.

ADMISSION REQUIREMENTS
To qualify for admission to the Master of Health Science (by Research) applicants must hold a degree in health science, or a related area, or equivalent, as approved by the School of Health Sciences.

DEGREE REQUIREMENTS
The research thesis must be original work conducted under the supervision of the student advisor/s and with the approval of the Postgraduate Studies Committee of the University.

The thesis of the candidate will be examined externally by examiners of high academic standing in the area of the candidate’s thesis topic.

Coursework may be required of candidates to further enhance the knowledge of a specific topic relevant to the field of study. Such coursework would run concurrent to the research.

DOCTOR OF PHILOSOPHY
Course Code: HPHS
The School of Health Sciences offers PhD research programs in many areas of specialisation such as:
• Complementary Therapies;
• Cultural Issues and Health;
• Emergency Services;
• Health Counselling;
• Health Education;
• Health Administration
• Natural Medicine;
• Osteopathic Medicine;
• Rehabilitation;
• Traditional Chinese Medicine
• Chinese Medicine;
• Western Herbal Medicine;
• Women’s Health.

ADMISSION REQUIREMENTS
To qualify for admission of the Doctor of Philosophy applicants must have a Master degree or a four-year undergraduate degree with honours at first class (H1) or upper second class (H2A) level. Applicants who do not meet the normal admission requirements, may be admitted upon demonstration of exceptional background and experience.

COURSE DURATION
The course normally requires three years of full-time study or part-time equivalent.

DEGREE REQUIREMENTS
The research thesis must be original work conducted under the supervision of the student advisor/s and with the approval of the Postgraduate Studies Committee of the University.

The thesis of the candidate will be examined externally by examiners of high academic standing in the area of the candidate’s thesis topic.

Coursework may be required of candidates to further enhance the knowledge of a specific topic relevant to the field of study. Such coursework would run concurrent to the research.
POSTGRADUATE STUDIES

SCHOOL OF MOLECULAR SCIENCES

POSTGRADUATE PROGRAMS BY RESEARCH
The School offers the following research degrees:
• Doctor of Philosophy;
• Master of Science
The research activities in the School of Molecular Sciences (SMS) can be broadly classified into the three areas in which it conducts its undergraduate Bachelor of Science programs, namely:
• Biotechnology
• Medical, Forensic and Analytical Chemistry
• Nutrition, Food and Health Science

Indeed, the SMS continuously strives to incorporate the latest research findings in its undergraduate teaching programs. In the School of Molecular Sciences, research is performed within the following specific research groups:
• Biotechnology
• Food Science
• Synthetic Chemical and Analytical Science

These groups interact strongly with each other as well as engaging with a wide range of local and international universities, government and private research groups, centres and organisations. Examples of external collaborators include:
• AgriFood Technology
• Australian Government Analytical Laboratory [AGAL]
• Australian Wine Research Institute
• Carlton and United Breweries Ltd
• Centre for Packaging, Transportation and Storage (Victoria University)
• CSIRO
• Deakin University
• Department of Primary Industries
• Flinders University of South Australia
• Food Sciences Australia
• Monash University
• Polychip Pharmaceuticals Pty Ltd
• State Chemistry Laboratory (SCL)
• The Royal Women's Hospital
• The University of Auckland, New Zealand
• The University of Melbourne
• Victoria Institute of Biotechnology (VIB)
• Victoria Forensic Science Centre
• Vital Health Sciences Pty Ltd

The School of Molecular Sciences research activities are supported by world-class facilities and are conducted by highly qualified and experienced research staff. The SMS has a wide range of research projects in the above areas and has attracted both private and government financial support for its programs. Much of the research attracts industry funding on a collaborative or contractual basis, however, there is much scope to develop projects of a fundamental nature as well.

BIOTECHNOLOGY RESEARCH GROUP
Research within the Biotechnology Research Group (BRG) involves a broad range of biotechnology disciplines, including microbiology, cell culture, biochemistry, reproductive biology and molecular biology. Specific expertise within the BRG includes protein chemistry, enzymology, gene expression, genetic engineering, gene discovery, fermentation technology, food and anaerobic microbiology. Research topics include:
• Forensic investigations using genetic polymorphisms.
• Probing the molecular basis of cancer.
• Improving antibody yields from a hybridoma cell line.
• Molecular characterisation and utilisation of genes and proteins associated with tolerance to cell stressors such as metal ions, ethanol and heat.
• Using recombinant DNA and molecular techniques to improve ethanol yield and productivity during fermentations for beer, wine and industrial ethanol production.
• Improving the efficiency and adaptability of microbial processes used for environmental sustainability, including bioethanol from lignocellulosic wastes and bioremediation.
• Premature rupture of fetal membranes and the initiation of birth in women.

CHEMICAL SYNTHESIS AND ANALYTICAL SCIENCE RESEARCH GROUP
The Chemical Synthesis and Analytical Science (CSAS) research group encompasses research activity in the general area of synthetic organic chemistry and applied analytical chemistry. The group has major research interests in the following areas:
• analysis of environmental pollutants
• environmental chemistry
• separation and analysis of trace constituents of commercial materials, metallic ores and biological substances
• development of novel instrumentation for atomic analysis and wine science
• polymer stabilisation and degradation
• polymer packaging science
• landfill technology
• waste minimisation
• applied analytical and inorganic chemistry and separation technology
• biocatalysis in the synthesis of materials of commercial importance
• occupational and environmental health and safety
• preparation of vitamins and nutraceuticals with increased bioavailability
• chemical education
FOOD SCIENCE RESEARCH GROUP
The Food Science Research Group (FSRG) is a recognised key research unit within the Faculty of Health, Engineering and Science. The unit facilitates an integrated, multidisciplinary approach to research and brings together much of the Faculty’s resident expertise in the broad areas of microbiology, biochemistry, biotechnology and food science and technology, as well as incorporating the expertise of the analytical biochemistry and chemistry, sensory analysis, rheology and nutrition.

The current areas of research interest in the FSRG include:

- **Microbiology, Dairy and Fermentation Technology**: Probiotics and functional foods, food and industrial applications of lactic acid bacteria; isolation and characterisation of natural antimicrobials; bacteriocins; Mozzarella cheese using exopolysaccharide producing starter cultures, fat replacers, modified starches. Development of cheddar cheese, yoghurt and soy yoghurt incorporating probiotic culture.
- **Food Biochemistry and Biochemical Analysis**: Enzymatic and non-enzymatic deteriorative changes with respect to fruit and vegetable processing; enzyme analysis; immobilised enzyme and cell technologies; enzyme catalysis in supercritical and organic solvents; extractive and fractionation technologies, including membrane processing and supercritical fluid extraction of agricultural and food produce; NIR analysis of foods.
- **Fruit and Vegetable Science and Technology**: Physical and chemical properties, enzymes in fruits and vegetables, other processing and storage technologies including modified atmosphere packaging, coatings, and processed products. Analysis of fresh fruit and vegetable processing with an aim to minimize energy use. Anthocyanins as functional ingredient and their fate during preservation and processing of fruits and vegetables.
- **Fats and Oils**: Optimisation of processing parameters of frying. Analysis of nutritional parameters in a range of vegetable oil based products.
- **Herbs and Spices**: Chemical analysis of groups of herbs and spices to determine if they contain common components known to cause allergic reactions in certain individuals.
- **Wine Analysis**: Chemical composition analysis of red and white wines for quality attributes and authenticity. The School has a wide range of research projects in the above areas and has attracted good financial support for its programs. Much of the research attracts industry funding on a collaborative or contractual basis, however there is broad scope to develop projects of a fundamental nature as well. The School works closely with the Food Marketing and Packaging and polymer units of the university and with external organisations including Food Science Australia and Agrifood Technology.

**COURSEWORK PROGRAMS**
The School offers the following postgraduate coursework programs:
- Graduate Diploma in Environmental Management
- Master of Science in Environmental Management
- Master of Science (Food Science)
- Master of Science in Biotechnology (Biotechnology and Bioinformatics Streams)

GRADUATE DIPLOMA IN ENVIRONMENTAL MANAGEMENT
Course Code: SGEM

**COURSE OBJECTIVES**
The course is aimed at producing graduates with a good understanding of contemporary environmental problems and solutions. A mixture of coursework will be provided including solid waste management, water pollution control and environmental law.

**COURSE DURATION**
The course will be offered in full-time and part-time modes.

**ADMISSION REQUIREMENTS**
The normal entry requirement is a relevant degree or diploma, but special admission may be granted for applicants without the required qualifications but with a number of years of relevant industrial experience.

**COURSE STRUCTURE**

| SESSION 1 | 
| --- | --- |
| RCS5111 Principles of Environmental Science and Management | 12 36 |
| RCS5121 Environmental Law & Standards 1 | 12 36 |
| RCS5131 Water Pollution Monitoring & Liquid Waste Management | 12 36 |
| RCS5172 Solid Waste Management | 12 36 |

| SESSION 2 | 
| --- | --- |
| RCS5100 Research Methodology | 12 36 |
| RCS5132 Environmental Law & Standards 2 | 12 36 |
| RCS5141 Air Quality Management | 12 36 |
| RCS5192 Cleaner Production Technology & Waste Minimization | 12 36 |

**ASSESSMENT**
Assessment will consist of assignments, field reports, class presentations and end-of-semester examinations.

MASTER OF SCIENCE IN ENVIRONMENTAL MANAGEMENT
Course Code: SMEM

**COURSE OBJECTIVES**
The Masters program is designed to enhance the students’ range of knowledge in environmental waste management and pollution control, to provide additional skills in research and development and to enable a focusing of practical skills into a specific research area which may be related to the candidates’ current employment.

**COURSE DURATION AND STRUCTURE**
The Masters program consists of a coursework component that is equivalent to the Graduate Diploma and a research project component. Both components are available on a part-time basis.

**COURSE STRUCTURE**

| SESSION 1 | 
| --- | --- |
| RCS5111 Principles of Environmental Science & Management | 12 36 |
RBF6750 Food Safety and Quality Assurance 16 6
RBF6730 Preservation and Processing Technology 16 6

(a) Core subjects – 128 credit points
- RBF6710 Food Analysis 16 6
- RBF6720 Food Microbiology 16 6
- RBF6724 Dairy Science and Technology 16 6
- RCS5141 Air Quality Management 12 36
- RCS5121 Environmental Law & Standards 1 12 36
- RCS5192 Cleaner Production Technology & Waste Minimization 12 36
- RCS5132 Environmental Law & Standards 2 12 36
- RCS5100 Research Methodology 12 36

SESSION 2
- RCS5114 Environmental Law & Standards 1 12 36
- RCS5172 Solid Waste Management 12 36
- RCS5122 Grain Science & Technology 12 36
- RCS5131 Water Pollution Monitoring & Liquid Waste Management 12 36
- RCS5112 Environmental Law & Standards 1 12 36

(b) Elective subjects (commodity) – 48 credit points selected from the following:
- RCS6000 Project 48 150
- RCS6760 Chemistry of Foods 16 6
- RCS6722 Grain Science & Technology 16 6
- RCS6724 Dairy Science and Technology 16 6
- RCS6721 Fruit & Vegetable Science and Technology 16 6
- RCS6723 Muscle Food Science and Technology 16 6
- RCS6760 Food Analysis 16 6
- RCS6740 Special Topics in Food Technology 16 6
- RCS6745 Food Product Development 16 6
- RCS6750 Food Safety and Quality Assurance 16 6
- RCS6724 Dairy Science and Technology 16 6
- RCS6730 Preservation and Processing Technology 16 6
- RCS6720 Food Microbiology 16 6

(c) Elective subjects (general) – 16 credit points selected from the following or relevant subjects complementary to objective of the course:
- RBF6910 Minor Project 16 6
- RBF6920 Major Project-1 16 12
- RBF6925 Major Project-2 16 12
- RBF6930 Industry Training 16 6
- RBF6760 Chemistry of Foods 16 6
- RCS6710 Food Analysis 16 6
- RCS6720 Food Microbiology 16 6
- RCS6724 Dairy Science and Technology 16 6
- RCS6721 Fruit & Vegetable Science and Technology 16 6

ADMISSION REQUIREMENTS
The normal entry requirement is a four year Bachelor of Science Degree or a three year Bachelor of Science Degree with relevant experience. Applicants who do not meet these qualifications may be admitted based undergraduate degree plus relevant employment experience.

ASSESSMENT
Assessment for the will consist of assignments, field reports, class presentations, end-of-semester examinations and a project report.

MASTER OF SCIENCE (FOOD SCIENCE)
Course Code: SMFS

COURSE OBJECTIVES
The course is designed to provide professional training in food science and technology for graduates in science, applied science, engineering, agricultural and other related disciplines who may or may not have had previous formal training in this area. The course seeks to equip graduates with the necessary knowledge and skills required to operate effectively in the food industry at various management levels. The course is designed not only to train recent graduates as food technologists, but also to enable those already employed in the food and associated industries to enhance their professional status.

ADMISSION REQUIREMENTS
To qualify for admission to the course an applicant must have satisfactorily completed a four year science based undergraduate degree, or a science based honours degree, or a three year science based undergraduate degree plus relevant employment experience. Applicants who do not meet these qualifications may be admitted after the completion of an approved course of pre-study, or on submission of such other evidence of academic, professional or vocational attainment to indicate that the applicant possesses the educational preparation and capacity to pursue the course.

COURSE DURATION
The course requires the successful completion of a program of compulsory and elective subjects, totalling a minimum of 192 credit points. Subject to demand, the course is offered on a full-time basis over two years or equivalent part-time.

COURSE STRUCTURE

Year 1
(a) Core subjects – 128 credit points
- RBF6730 Preservation and Processing Technology 16 6
- RBF6750 Food Safety and Quality Assurance 16 6
- RBF6720 Food Microbiology 16 6
- RBF6710 Food Analysis 16 6
- RCS6760 Research Practice, Ethics and Communication in Food Science

(b) Elective subjects (commodity) – 48 credit points selected from the following:
- RCS6000 Project 48 150
- RCS6760 Chemistry of Foods 16 6
- RCS6722 Grain Science & Technology 16 6
- RCS6724 Dairy Science and Technology 16 6
- RCS6721 Fruit & Vegetable Science and Technology 16 6
- RCS6723 Muscle Food Science and Technology 16 6
- RCS6760 Food Analysis 16 6
- RCS6740 Special Topics in Food Technology 16 6
- RCS6745 Food Product Development 16 6
- RCS6750 Food Safety and Quality Assurance 16 6
- RCS6720 Food Microbiology 16 6
- RCS6724 Dairy Science and Technology 16 6
- RCS6721 Fruit & Vegetable Science and Technology 16 6

(c) Elective subjects (general) – 16 credit points selected from the following or relevant subjects complementary to objective of the course:
- RBF6910 Minor Project 16 6
- RBF6920 Major Project-1 16 12
- RBF6925 Major Project-2 16 12
- RBF6930 Industry Training 16 6
- RBF6760 Chemistry of Foods 16 6
- RCS6710 Food Analysis 16 6
- RCS6720 Food Microbiology 16 6
- RCS6724 Dairy Science and Technology 16 6
- RCS6721 Fruit & Vegetable Science and Technology 16 6

ADMISSION REQUIREMENTS
Applications will be considered from graduates who have completed an undergraduate degree, comprising the equivalent of at least three years full-time study in an approved area of study. Eligible areas include Biology, Chemistry, Biochemistry, Biomedical Sciences, Veterinary Science, MBBS and other related fields. Academic performance will be required to be, on average, at least at credit level in the undergraduate degree. A substantial amount of laboratory work will be required to have been completed in the undergraduate degree so that students are already proficient in basic biological, microbiological and chemical laboratory techniques. In addition, there will be the normal requirement for a minimum score of 6.5 in the IELTS English language test.

COURSE DURATION
The duration of the course is two years full-time with the option of a part-time equivalent.
COURSE STRUCTURE
This Biotechnology course consists of two streams, Biotechnology and Bioinformatics, each of which involves a total of 16 subjects totaling 192 credit points for the course. In the first year of the degree, students for each stream are required to take 8 core subjects. In the second year of the degree students in the Biotechnology stream are required to choose elective subjects from group B and four others from groups B or C. Students in the Bioinformatics stream must take four core subjects, choose four electives from group B or C. Other subjects from the School of Molecular Sciences or other schools may also be taken as electives, subject to approval by the Course Co-ordinator.

BIOTECHNOLOGY AND BIOINFORMATICS STREAMS
(Group A, Core Subjects)

Year 1

<table>
<thead>
<tr>
<th>Subject</th>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMS5110 Molecular Genetics Theory</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RMS5120 Applied Genetic Engineering</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>RMS5140 Bioprocessing Technology Principles</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RMS5145 Bioprocessing Technology Applications</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RMS5130 Functional Genomics &amp; Bioinformatics</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RMS5135 Functional Genomics and Bioinformatics Applications</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RMS5160 Intellectual Property and Commercialization</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RMS5150 Ethics and Regulatory Affairs in Biotechnology</td>
<td>2</td>
<td>12</td>
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</tbody>
</table>

Year 2

Elective subjects for Biotechnology Stream
(Group B, Choice of four)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Semester</th>
<th>Credit Points</th>
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</thead>
<tbody>
<tr>
<td>RMS6130 Bioinformatics 1</td>
<td>1</td>
<td>12</td>
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<tr>
<td>RMS6170 Drug Design and Development</td>
<td></td>
<td>12</td>
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<tr>
<td>RMS6142 Biotechnology Research Methods</td>
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<tr>
<td>RCM6980 Statistical Methods for Biological Research</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RMS6135 Bioinformatics 2</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RMS6145 Protein Production, Purification and Analysis</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RMS6140 Cell Culture and Fermentation Technology</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RMS6141 Animal and Plant Biotechnology</td>
<td>2</td>
<td>12</td>
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</table>

Core Subjects for Bioinformatics Stream

<table>
<thead>
<tr>
<th>Subject</th>
<th>Semester</th>
<th>Credit Points</th>
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</thead>
<tbody>
<tr>
<td>RMS6130 Bioinformatics 1</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RCM5800 Object Oriented Programming</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>RMS6135 Bioinformatics 2</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>RCM6607 Statistical Computing</td>
<td>2</td>
<td>12</td>
</tr>
</tbody>
</table>

Other Electives
(Group C, from other schools and faculties)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCM5800 Object Oriented Programming</td>
<td>12</td>
</tr>
<tr>
<td>RCM6607 Statistical Computing</td>
<td>12</td>
</tr>
<tr>
<td>RCM5802 Information Systems</td>
<td>12</td>
</tr>
<tr>
<td>RCM5803 Data Structures and Programming</td>
<td>12</td>
</tr>
<tr>
<td>RCM5602 Quality Management and Statistics</td>
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<tr>
<td>BMS600 Project Management</td>
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<tr>
<td>BLO6502 Law for Management</td>
<td>12</td>
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<tr>
<td>BLS3129 Intellectual Property Law</td>
<td>12</td>
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<tr>
<td>BHO6505 Marketing Management</td>
<td>12</td>
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<tr>
<td>BCE5304 International Business Operations</td>
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</tr>
</tbody>
</table>

PACKAGING AND POLYMER RESEARCH UNIT

COURSES OFFERED
The Packaging and Polymer Research Unit offers postgraduate courses leading to the award of:

- Doctor of Philosophy
- Master of Engineering (Research)
- Master of Engineering Science in Packaging (Coursework)

A wide variety of research projects are available. Most programs offer participation in industry projects.

Additionally, the Unit is currently developing a program for a degree qualification in packaging.

The Unit also offers a variety of short training courses on various topics relevant to the packaging science and technology domain. In addition, the Unit offers the following undergraduate subjects in Packaging Technology, available within the School of Architectural, Civil and Mechanical Engineering:

- EMU4401 Transportation Dynamics
- EMU4402 Design and Testing of Containers

FOCUS
The Packaging and Polymer Research Unit (PPRU) has strong associations with scientists and engineers from Schools across the Faculty as well as the wider University. Its purpose is to complement the University’s educational courses as relevant to packaging technology with research programs in areas concerned with the packaging and distribution of goods. Through the Sustainable Packaging Alliance, a strategic R&D initiative in collaboration with RMIT Centre for Design and Birubi Innovation, the Unit’s research focus is very much driven by the need to develop environmentally, economically and socially sustainable packaging systems. In addition to its research program and education activities, the Unit undertakes technical studies and testing for industry clients.

Victoria University is unique in Australia in having dedicated considerable resources toward high quality research in packaging, which is an important part of one of the University’s areas of research focus.

MISSION
The mission of the Unit is to be a leading, internationally-recognized provider of education, research and related services in packaging and polymer science and technology.

The Unit is particularly mindful of its role in the development of partnerships with industry, commerce and government through collaborative research, consultancy, educational and training programs and dissemination of technical information. It has established a variety of research collaborations and networks with various research organizations in Australia and overseas.

RESEARCH ACTIVITIES
The Unit’s research program is very much driven by the needs of industry, government and community that are identified through the Sustainable Packaging Alliance. Research programs currently in progress include anti-microbial and active food packaging; the use of recycled materials in food contact applications; environmental impact evaluation and strategy development; measurement, analysis and laboratory simulation of distribution environments; odour characterization and oxidative stability of polymer materials; development of new techniques for sustainable packaging design and evaluation; and others.
INTERNATIONAL PROGRAMS: OFFSHORE
PROGRAM CONDUCTED IN NETHERLANDS

MASTER OF ENGINEERING SCIENCE IN
PACKAGING (COURSEWORK)
Course Code: EMPK

**COURSE STRUCTURE**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Points</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPK6001</td>
<td>Development of Packaging Systems</td>
<td>16</td>
<td>36</td>
</tr>
<tr>
<td>RPK6002</td>
<td>Marketing Research</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>RPK6003</td>
<td>Costing Methodologies and Impacts</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>RPK6004</td>
<td>Investment/Capital Analysis and Budgeting</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>RPK6005</td>
<td>Quality Assurance and Management</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>RPK6006</td>
<td>Operational Strategies</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>RPK6007</td>
<td>Business and Marketing Strategy</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>RPK6008</td>
<td>Packaging Strategy Development and Implementation</td>
<td>16</td>
<td>36</td>
</tr>
<tr>
<td>RPK6009</td>
<td>Development Project/Minor thesis</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>
The School of Nursing and Midwifery is a leader in clinical nursing education. A feature of the Graduate programs within the School is the focus on contemporary nursing and health care practice. Programs include an articulated Masters degree, which includes exit points at Graduate Certificate and Graduate Diploma level, Master of Midwifery, Graduate Diploma in Substance Abuse, Master of Nursing (Research) and PhD.

Discipline focus areas are in cancer nursing, palliative care, orthopaedics, paediatrics, neurology, cardiothoracic and accident and emergency nursing.

The Graduate Diploma in Substance Abuse is designed for health care practitioners from a range of disciplines. Our lively research culture is generating interest from industry and professional organisations.

**COURSE OFFERINGS**

In 2006, the School of Nursing and Midwifery will offer the following postgraduate programs:

<table>
<thead>
<tr>
<th>Campus</th>
<th>Full-time</th>
<th>Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Diploma in Substance Abuse Studies</td>
<td>F</td>
<td>Y</td>
</tr>
<tr>
<td>Master of Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>incorporating:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Certificates in:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Cardiothoracic Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>- Cancer Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>- Emergency Nursing</td>
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<td>Y</td>
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<tr>
<td>- Gerontic Nursing</td>
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<td>- Neuroscience Nursing</td>
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<td>- Orthopaedic Nursing</td>
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</tr>
<tr>
<td>- Paediatric Nursing</td>
<td>S</td>
<td>Y</td>
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<tr>
<td>Graduate Diplomas in:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Cardiothoracic Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>- Cancer Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>- Emergency Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>- Gerontic Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>- Neuroscience Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>- Orthopaedic Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>- Paediatric Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>Master of Midwifery</td>
<td>S</td>
<td>n/a</td>
</tr>
<tr>
<td>incorporating:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Graduate Diploma in Midwifery</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>Master of Health Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Mental Health</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>Master of Public Health Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>incorporating:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Graduate Certificate in Public Health Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>- Graduate Diploma in Public Health Nursing</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>Master of Nursing (by Research)</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>Doctor of Philosophy</td>
<td>S</td>
<td>Y</td>
</tr>
</tbody>
</table>

*Campus* S=St Albans F=Footscray Park

**GRADUATE DIPLOMA IN SUBSTANCE ABUSE STUDIES**

Course Code: HGSA

**COURSE OBJECTIVES**

The aim of the course is to provide students with a broad understanding of theories, treatment methods, health promotion skills and therapeutic intervention techniques that would allow them to make a positive contribution in the area of substance abuse through appropriate direct intervention and referral.

The course is designed to be both a useful stand alone qualification and to articulate with several other graduate courses offered within the University.

**ADMISSION REQUIREMENTS**

This course is a multi-disciplinary program and is open to all health care professionals or individuals working in the area of substance abuse.

To qualify for admission to the course applicants must normally hold a bachelor degree. Applicants who do not meet the normal admission requirement, but who possess appropriate professional experience and meet such other requirements as are perceived appropriate by the School, may be considered. These requirements may include the completion of selected nursing and/or other subjects from the undergraduate degree program, or a preparation for study program.

Applicants may be required to attend an interview and would need to demonstrate to an academic panel adequate preparation to undertake studies at a higher level.

**COURSE DURATION**

The course is offered over one year on a full-time basis or part-time equivalent, depending on demand.

**COURSE STRUCTURE**

The part-time structure is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Credit Points</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year One</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semester One</td>
<td>HNS5010 Theories of Addiction</td>
<td>12</td>
</tr>
<tr>
<td>Semester Two</td>
<td>HNS5020 Treatment of Substance Abuse</td>
<td>12</td>
</tr>
<tr>
<td>Semester Two</td>
<td>HNS5030 Health Promotion/Prevention in Substance Abuse</td>
<td>12</td>
</tr>
<tr>
<td>HNS5040 Therapeutic Interventions</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Year One</strong></td>
<td><strong>48</strong></td>
<td><strong>144</strong></td>
</tr>
</tbody>
</table>

| Year Two | | |
| Semesters One and Two | HNM6122 Clinical Project | 48 | 3 |
| **Course Total** | **96** | **180** |
MASTER OF NURSING
Course Code: HMPN
Incorporating -

GRADUATE CERTIFICATES AND GRADUATE DIPLOMAS IN

- CANCER NURSING
- EMERGENCY NURSING
- GERONTIC NURSING
- NEUROSCIENCE NURSING
- ORTHOPAEDIC NURSING
- PAEDIATRIC NURSING
- NURSING MANAGEMENT

COURSE OBJECTIVES
The Master of Nursing has been developed for nursing graduates who wish to undertake studies in clinical speciality areas of nursing within a range of health care settings, with specific aims to:

- produce nurse specialists with expertise in their area of specialty with diagnostic and decision making skills to solve complex patient care problems in the work environment;
- produce nurse professionals with skills to investigate, challenge and develop current practices;
- develop skills to analyse and critique contemporary theories that inform practice;
- enhance students’ ability to analyse social and political dynamics within the current health care environment;
- produce nurse professionals who not only adapt to the changing needs within the health care environment, but who will also engage in political processes to facilitate institutional and social change;
- develop skills to form collaborative relationships with agencies and other health care professionals; and
- provide the opportunity for students to develop a knowledge of self and explore a range of world views.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must normally:

- hold an undergraduate degree in Nursing or equivalent; and
- be registered with the Nurses Board of Victoria as a Division 1 Nurse; and
- be working in the area of specialisation at the time of application.

Applicants who do not meet the normal admission requirements will be considered if they are eligible for registration as a Division 1 Nurse with the Nurses Board of Victoria; have relevant professional experience in Nursing, as approved by the School; and meet such other requirements as are perceived appropriate by the School. These requirements may include the completion of selected nursing and/or other subjects from the undergraduate degree program, or a preparation for study program.

COURSE DURATION
The Master of Nursing is offered over three semesters on a full-time basis or part-time equivalent.

COURSE STRUCTURE
The Program provides for multiple entry and exit points. Upon completion of the first semester of study students may exit with the Graduate Certificate in their chosen area of specialisation. Upon completion of the second semester of study students may exit with the Graduate Diploma in their chosen area of specialisation. The third and final semester of study completes the articulated sequence of study leading to the Master of Nursing.

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNR0001 Introduction to Research Design and Methods</td>
<td>16 3</td>
</tr>
<tr>
<td>Specialisation Subject Level 1</td>
<td>16 3</td>
</tr>
<tr>
<td>Specialisation Subject Level 2</td>
<td>16 3</td>
</tr>
<tr>
<td>Total</td>
<td>48 117</td>
</tr>
<tr>
<td>Semester Two</td>
<td>Credit Hours</td>
</tr>
<tr>
<td>HNG5001 Issues &amp; Policies in Professional Practice</td>
<td>16 3</td>
</tr>
<tr>
<td>Specialisation Subject Level 3</td>
<td>16 3</td>
</tr>
<tr>
<td>Total</td>
<td>48 117</td>
</tr>
</tbody>
</table>

Exit point for the Graduate Diploma in Specialisation Nursing Semester Three

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNM6118 Evidence Based Practice in Specialised Nursing</td>
<td>16 3</td>
</tr>
</tbody>
</table>

MINOR THESIS STREAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFR0001 Advanced Quantitative Research Methods or</td>
<td>16</td>
</tr>
<tr>
<td>HFR0002 Advanced Qualitative Research Methods</td>
<td>16 3</td>
</tr>
<tr>
<td>Semester Two Total</td>
<td>48 117</td>
</tr>
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</table>

Exit point for the Graduate Diploma in Specialisation Nursing Semester Three

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNM6119 Leadership &amp; Management in Specialised Nursing</td>
<td>16 3</td>
</tr>
<tr>
<td>HNM6029 Clinical Specialised Project 16x2</td>
<td>32 6</td>
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MINOR THESIS STREAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHA6115 Minor Thesis (Full-Time)</td>
<td>48 9</td>
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<tr>
<td>Semester Three Total</td>
<td>117</td>
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</table>

Cumulative Course Total 96

SPECIALISATION SUBJECTS

<table>
<thead>
<tr>
<th>Level</th>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HNAS001</td>
<td>Gerontic Nursing Studies 1</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>HNE5001</td>
<td>Emergency Nursing Studies 1</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>HNM5001</td>
<td>Cancer Nursing Studies 1</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>HNN5001</td>
<td>Neuroscience Nursing Studies 1</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>HNO5001</td>
<td>Orthopaedic Nursing Studies 1</td>
<td>16</td>
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<tr>
<td></td>
<td>HNP5001</td>
<td>Paediatric Nursing Studies 1</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>HNM5004</td>
<td>Nursing Management 1</td>
<td>16</td>
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<tr>
<td>Level 2</td>
<td>HNAS002</td>
<td>Gerontic Nursing Studies 2</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>HNAS003</td>
<td>Gerontic Nursing Studies 3</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>HNE5002</td>
<td>Emergency Nursing Studies 2</td>
<td>16</td>
</tr>
</tbody>
</table>
HNM5002 Cancer Nursing Studies 2 16
HNN5002 Neuroscience Nursing Studies 2 16
HNN5003 Neuroscience Nursing Studies 3 16
HNOS02 Orthopaedic Nursing Studies 2 16
HNOS03 Orthopaedic Nursing Studies 3 16
HNPS02 Paediatric Nursing Studies 2 16
HNPS03 Paediatric Nursing Studies 3 16
HNMS05 Nursing Management 2 16
HNMS06 Nursing Management 3 16
Level 3
HNEMS03 Emergency Nursing Studies 3 16
HNMS03 Cancer Nursing Studies 3 16

MASTER OF MIDWIFERY
Course Code: HMMW (not offered in 2006)
Incorporating –

GRADUATE DIPLOMA IN MIDWIFERY
Course Code: HGMW (not offered in 2006)

COURSE OBJECTIVES
The aim of the program is to prepare graduates who will be expected to provide comprehensive midwifery care. The program seeks to:

• provide students with learning experiences to enable them to competently care for women during the childbearing continuum according to the ACMI Competency Standards for Midwives (1998);
• enhance students personal and professional growth within the discipline of midwifery; and,
• provide eligibility for endorsement as a midwife on the Division 1 Register with the Nurses Board of Victoria.

ADMISSION REQUIREMENTS

GRADUATE DIPLOMA
To qualify for admission to the course applicants must:

• be registered or be eligible to register with the Nurses Board of Victoria as a Division 1 Nurse;
• hold an undergraduate degree in Nursing or an equivalent; and
• hold a current practicing certificate from the Nurses Board of Victoria;
• have a minimum of one years’ clinical experience following registration as a general nurse.

Applicants who do not meet the normal admission requirements but who possess appropriate education qualifications, work or life experiences which would enable them to successfully undertake the course, will be considered.

Applicants must demonstrate that they possess the educational preparation and capacity to pursue graduate studies.

MASTER OF MIDWIFERY
To qualify for admission to the course applicants must normally:

• be registered with the Nurses Board of Victoria as a Division 1 Nurse, with endorsement as a Midwife; and
• hold a current annual practising certificate from the Nurses Board of Victoria.

Applicants must also satisfy the School that they possess the educational preparation and capacity to pursue graduate studies.

Additional requirements for admission to the course may be prescribed by the School. Admission will be at the discretion of the Head of School.

COURSE DURATIONS
The course is offered over four semesters. Semesters one and two comprise the Graduate Diploma in Midwifery and are offered on a full-time basis or part-time equivalent. The third and fourth semesters complete the articulated sequence of study leading to the Master of Midwifery and are offered on a full-time or part-time equivalent.

COURSE STRUCTURE

GRADUATE DIPLOMA

The course consists of six subjects, some incorporating clinical practice. The clinical practice component will consist of short and long term agency supervised placements. Supervision will be provided by experienced Midwives.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Clinical Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNM5010</td>
<td>Sociopolitical Aspects of Midwifery</td>
<td>12</td>
<td>39</td>
</tr>
<tr>
<td>HNM5021</td>
<td>Psychosocial Context of Maternity</td>
<td>12</td>
<td>36</td>
</tr>
<tr>
<td>HNM5011</td>
<td>Primary Care Midwifery (F/T)</td>
<td>24</td>
<td>72</td>
</tr>
<tr>
<td>or</td>
<td>HNM5012</td>
<td>Primary Care Midwifery (P/T)</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Semester Two</td>
<td></td>
</tr>
<tr>
<td>HNR0001</td>
<td>Introduction to Research Design and Methods</td>
<td>8</td>
<td>36</td>
</tr>
<tr>
<td>HNM5020</td>
<td>Collaborative Midwifery (F/T)</td>
<td>24</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>182</td>
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</table>

or

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Clinical Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNM5023</td>
<td>Collaborative Midwifery (P/T)</td>
<td>15</td>
<td>72</td>
</tr>
<tr>
<td>HNM5022</td>
<td>Consolidation of Midwifery Practice</td>
<td>16</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Course Total</td>
<td>96 255</td>
</tr>
</tbody>
</table>

524

MASTER OF MIDWIFERY

The Master of Midwifery comprises the Graduate Diploma plus one of the following pathways:

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Credit Hours</th>
<th>Clinical Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATHWAY 1 – PRACTICE FOCUS</td>
<td></td>
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</tr>
<tr>
<td>Semester One</td>
<td>HNM6011 Counselling in the Health Care Context</td>
<td>8</td>
</tr>
<tr>
<td>Semester Two</td>
<td>HNM6012 Advanced Practice: Counselling</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>HNM6013 Project</td>
<td>24</td>
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<td></td>
<td>Pathway 1 Total</td>
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</table>

PATHWAY 2 – RESEARCH FOCUS

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Credit Hours</th>
<th>Clinical Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester One</td>
<td>HNM6040 Research Planning</td>
<td>12</td>
</tr>
<tr>
<td>Semester Two</td>
<td>HA6115 Minor Thesis (Full-Time)</td>
<td>48</td>
</tr>
<tr>
<td>or</td>
<td>HA6116 Minor Thesis (Part-Time)</td>
<td>12</td>
</tr>
<tr>
<td>Pathway 2 Total</td>
<td>96</td>
<td>153</td>
</tr>
</tbody>
</table>

PROFESSIONAL RECOGNITION

Graduates from this program will be eligible for endorsement as a Midwife with the Nurses Board of Victoria. Graduates may also apply for membership of the Australian College of Midwives Inc.
FACULTY OF HEALTH, ENGINEERING AND SCIENCE

MASTER OF PUBLIC HEALTH NURSING
Course Code: HMPH
Incorporating –

GRADUATE CERTIFICATE IN PUBLIC HEALTH NURSING
Course Code: HTPU

GRADUATE DIPLOMA IN PUBLIC HEALTH NURSING
Course Code: HGPU – not offered in 2006

COURSE OBJECTIVES
The course aims to prepare graduates with:
• enhanced knowledge and skills for professional practice as specialist nurses in public and community health;
• knowledge and skills to enable them to participate fully in a cross disciplinary public health team;
• ability to integrate knowledge relevant to nursing and public health and apply this to public health issues;
• enhanced educational and personal skills for life long learning
• the ability to respond with authority to global health needs and issues.

COURSE DURATION
The course is offered over three semesters on a full-time basis or part-time equivalent. Upon successful completion of the first semester of study students may exit with the Graduate Certificate in Public Health Nursing. Upon successful completion of the second semester of study students may exit with the Graduate Diploma in Public Health Nursing. The third and final semester of study completes the articulated sequence of study leading to the Master of Public Health Nursing.

ADMISSION REQUIREMENTS
To qualify for admission to the course applicants must hold an undergraduate degree in Nursing, or equivalent, and be registered with the Nurses Board of Victoria. In addition, applicants choosing to undertake the Maternal and Child Health stream must be currently endorsed as a midwife by the Nurses Board of Victoria.

COURSE STRUCTURE

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Credit Points</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNM6011</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>HNU5003</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>HNU5004</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>HNU5001</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNU5002</td>
<td>16</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Two</th>
<th>Credit Points</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNU5005</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>HNU5006</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>HFR0001</td>
<td>Advanced Qualitative Research Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Credit Points</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNU5001</td>
<td>Health and Development of the Young Family*#</td>
<td>16</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNU5002</td>
<td>Health and Development in Childhood and Adolescence*#</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Three</th>
<th>Credit Points</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHA6115</td>
<td>Minor Thesis (Full-Time)</td>
<td>48</td>
</tr>
<tr>
<td>HHA6116</td>
<td>Minor Thesis (Part-Time) 24</td>
<td></td>
</tr>
</tbody>
</table>

* Professional field work practice is not included in these hours.
*# Subjects requiring two semesters of study. Thus, the subject taken in semester one must also be taken in semester two.

PROFESSIONAL RECOGNITION
Graduate will be eligible for membership with the Public Health Association (PHA); Health Promotion Special Interest Groups of PHA; School Nurses Special Interest Group, ANF; Maternal & Child Health Nurses Special Interest Group, ANF; Royal College of Nursing Australia.

MASTER OF NURSING (BY RESEARCH)
Course Code: HRNR

COURSE OBJECTIVES
The Master of Nursing (by Research) is offered to students who have demonstrated the ability to undertake extensive study and research in a focused area of nursing. Although expected to demonstrate a high degree of independence, the student works under the guidance of a qualified and experienced supervisor. While the successful completion of this qualification depends entirely upon the examination of the thesis, the School of Nursing also places great emphasis on the development of research skills and background knowledge deemed necessary for successful completion of the research project.

AREAS OF SPECIALISATION
Staff within the School will supervise research in a number of areas of specialisation including:
• acute care nursing;
• community health nursing;
• mental health;
• midwifery;
• neuroscience nursing;
• nursing education;
• nursing theory and clinical practice;
• ontology and epistemology of caring;
• professional nursing issues;
• substance abuse;
• women’s health.

These areas of study are not exhaustive and applicants are advised to contact the School directly to discuss their proposed area of study.

COURSE DURATION
Completion of the Master of Nursing (by Research) normally requires two years of full-time study or part-time equivalent.
COURSE STRUCTURE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNM6800</td>
<td>Research Thesis (Full-Time)</td>
<td>48</td>
</tr>
<tr>
<td>HNM6801</td>
<td>Research Thesis (Part-Time)</td>
<td>24</td>
</tr>
</tbody>
</table>

ADMISSION REQUIREMENTS
To qualify for admission to the Master of Nursing applicants must hold an undergraduate degree in nursing or equivalent.

ADMISSION REQUIREMENTS
To qualify for admission to the Doctor of Philosophy applicants must have:
- a Master degree; or
- a four-year undergraduate degree with honours normally at upper second class level (H2A) or equivalent;
- exceptional related research experience.

COURSE DURATION
Completion of the Doctor of Philosophy normally requires three years of full-time study or part-time equivalent.

DEGREE REQUIREMENTS
In order to be awarded the Doctor of Philosophy students must undertake an appropriate research design subject, or any other subject as required by the School; have their candidature approved by the University and present their proposal to an appropriate research committee; and successfully complete a thesis undertaken with appropriate supervision. Students must receive a satisfactory progress report each semester.
SUSTAINABILITY GROUP

The Sustainability group has broad research interests, encompassing topics of interest to students with a focus on the conservation of species, their habitats and the biological impacts of pollution and other aspects of global change such as the greenhouse effect. Research in this group also includes the ecology of aquatic (marine, estuarine and fresh water) and terrestrial (grasslands and wet forests) ecosystems, in some cases with an emphasis on practical implications for improved management practices. Primary areas of specialisation are environmental leadership, ecology of freshwater wetlands, invertebrate systematics and biogeography, microbial ecology of aquatic systems, ecology and management of exotic marine pests and ecotoxicology of marine systems.

Staff in the Sustainability group are recognised internationally in their areas of specialisation, and publish in international and Australian refereed scientific journals. In recent years, staff in this group have had considerable success obtaining externally reviewed research grants, totalling in excess of $400,000.

Well-equipped laboratories are available for research activity with marine biology projects enjoying access to the Queenscliff laboratories of the Victorian Marine Science Consortium and the aquatic laboratory at VU St Albans Campus. A 4WD vehicle is available for field-based research projects, and modern field equipment such as GPS, various meters (O₂, light, etc.) are also available.
APT1025 INDIVIDUAL AWARENESS

Campus St Albans
Prerequisite(s) Admission to the Graduate Diploma in Counselling, or consent of the course co-ordinator

Content Discovery of self: investigation of fear of self-revelation and defence mechanisms; personality testing (Myer-Briggs); concept of individual growth. Exploration of potentially difficult discussion topics including death and dying, suicide, sexual concerns including loss and sexual potency and/or organs, AIDS and safe sexual practices; rape, incest and violence; anger; depression; religion; cross cultural issues and ethnic identity (may vary according to group). Format of classes includes group participation, basic introduction to group dynamics, building communication skills in the group, setting ground rules.

Required Reading To be advised by lecturer
Recommended Reading To be advised by lecturer
Subject Hours Two hours per week for one semester.
Assessment Autobiography exploring one's personal growth and counselling philosophy; Journal reflecting on process of classes. Minimum of 80% attendance is required (subject to change).

APT1035 THEORIES AND TECHNIQUES OF COUNSELLING

Campus St Albans
Prerequisite(s) Admission to the Graduate Diploma in Counselling, or consent of the course co-ordinator

Content This unit will focus on an exploration of the theoretical issues and practical skills associated with a range of counselling paradigms. Person Centred, Gestalt, Existential, Behavioural, Cognitive Behavioural and Psychodynamic theories will be addressed. Through role plays and class activities, students will be encouraged to develop their own counselling skills and reflect on their personal development as counsellors.

Required Reading To be advised by lecturer.
Subject Hours Three hours per week for one semester.
Assessment Theory paper 50%, counselling demonstration, 50%.

AXH5001 THE UNIVERSITY IN HISTORY

Campus St Albans
Prerequisite(s) Nil.

Content Participants will be assisted in developing their skills to trace the role of universities and other centres of learning in the evolution of particular societies, to analyse the range of policy choices in the development of universities, to understand the development of specific disciplines and their connection to wider social contexts and to construct scenarios for the future of the university ideal. They will be enabled to do this through a study of topics including: the university ideal in classical antiquity and the medieval university; Eastern and Islamic traditions of learning; the nineteenth-century revival of the university; the golden age of the European intellectual; Oxbridge and the British Empire; American developments and the multi-verse; nation building and the university; The Cold War universities; theories of education and economic development; the impact of the New Right; and the future of Australian universities.

Required Reading To be advised.

Subject Hours The equivalent of three hours per week per semester.
Assessment Class paper, 30%; literature search, 10%; essay plan, 10%; major essay of 5000 words or participants will reflect on a current policy issue in the light of historical perspectives, 50%.

BAO5735 ADVANCED FORECASTING, PLANNING AND CONTROL

Campus City Flinders
Prerequisite(s) Nil.

Content The subject aims to develop studies’ ability to analyse and present solutions to financial planning and management problems using a range of methods including spreadsheet and modelling, data analysis and forecasting techniques, information and decision support systems and executive information systems. Hands on use of appropriate software will be an essential feature of the subject and assessment tasks.

Required Reading To be advised by lecturer.
Class Contact Equivalent to 36 hours per semester normally to be delivered as a combination of lecture, seminar, tutorial and/or workshop or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.
Assessment Internal assessment, 100%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.
**BE05444 HUMAN RESOURCE ECONOMICS**

**Campus** City Flinders  
**Prerequisite(s)** Nil.  
**Content** This subject introduces students to the economic principles of the allocation of human resources within organisations and the wider economy. It will equip them with skills necessary to analyse the likely outcomes of specific human resource decisions. Topics include; supply and demand for labour and labour markets; disadvantaged labour market groups; the impact of unions on wages; payment systems and productivity; and the impact of wage fixing systems on the broader economy.  
**Required Reading** To be advised by lecturer.  
**Class Contact** Equivalent to 36 hours per semester normally to be delivered as a combination of lecture, seminar, tutorial and/or workshop or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.  
**Assessment** Class paper, 30%; research paper, 30%; test, 40%. Students are expected to satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BLO5513 LAW OF EMPLOYMENT**

**Campus** City Flinders  
**Prerequisite(s)** Nil.  
**Content** The aims of the subject are: to assist students to become familiar with aspects of employment law relevant to human resource management and industrial relations; to provide students with an understanding of the skills necessary to deal with legal problems which may arise in the world of work. The subject includes contract of employment; termination of employment; health and safety; and equal opportunity law.  
**Required Reading** To be advised by the lecturer  
**Class Contact** Equivalent to 36 hours per semester normally to be delivered as a combination of lecture, seminar, tutorial and/or workshop or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.  
**Assessment** Two case studies, 50% each. Students must satisfactorily complete each part of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BLO5537 BUSINESS LAW**

**Campus** City Flinders.  
**Prerequisite(s)** Nil.  
**Content** This subject aims to provide students with a working knowledge and overview of the Australian legal system and to provide students with an appreciation of contract and tort law issues – students in their working life should be able to avoid problem situations, and be more aware of the need for reform in particular areas. The subject includes: an introduction to the law; an examination of the litigation process, orus of proof, the sources of law in Australia, precedent, the court system and tribunals in Victoria; criminal law and the law of tort as it relates to business; a study of the law of negligence with a particular emphasis on professional liability for negligent statements and advice; the definition and nature of a contract including examination of the rules of offer and acceptance, termination of offers, rules of consideration, revocation of offer and acceptance, intention to be legally bound, certainty and terms; a study of breach of contract an examination of the different remedies available under the law; the interaction of tort law with contract; statutory schemes relating to contract with particular reference to the Trades Practices Act 1974 (Cth) and to the Goods (Sales and Leases) Act 1981 (Vic); discharge of contract by different occurrences such as frustration, mutual agreement, illegality and mistake.  
**Class Contact** Equivalent to 36 hours per semester normally to be delivered as a combination of lecture, seminar, tutorial and/or workshop or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.  
**Assessment** Midsemester test, 20%; essay, 20%; final examination, 60%. Students must satisfactorily complete each part of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

**BLO6502 LAW FOR MANAGEMENT**

**Campus** City Flinders. Kuala Lumpur, Singapore, China, Bangladesh.  
**Prerequisite(s)** Nil.  
**Content** An introduction to law, including historical origins of our legal system, the sources of law, the doctrine of precedent and the court hierarchy, the adversary system. Also examination of types of precedent, history of tort of negligence and the rules of statutory interpretation and the identification of the essential elements in the formation of a contract. Examination of the elements of contract including the distinction between a condition, a warranty and an in nominate term. Examination of Misrepresentation, Duress, Undue influence, Unconscionability. Consideration of the concept of a tort and the difference between the types of tort. Different types of business structures; sole traders; partnerships, joint ventures; incorporated and unincorporated associations and company law; a survey of the legal rules regulating administrative action.  
**Required Reading** Latimer, P., Australian Business Law (latest edn), CCH.  
**Class Contact** Equivalent to 36 hours per semester normally to be delivered as a combination of lecture, seminar, tutorial and/or workshop or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.  
**Assessment** Assignment, 40%; class participation, 10%; examination, 50%. In order to be awarded a pass in this subject, students must satisfactorily complete each component of the assessment. Supplementary assessment will not be available.

**BMI5537 TOPICS IN EMPLOYEE RELATIONS MANAGEMENT**

**Campus** City Flinders.  
**Prerequisite(s)** Nil.  
**Content** The subject aims to provide students with an opportunity to study in School, issues of contemporary importance in industrial relations. On completion of the subject, students should be able to critically examine issues and identify their impact on industrial relations and examine the change process as well as understanding the options for dealing with change. It will include topics such as new technology, industrial democracy, women and the labour market, occupational health and safety, and contemporary reforms to organisations.  
**Required Reading** To be advised by lecturer.  
Class Contact Equivalent to 36 hours per semester normally to be delivered as a combination of lecture, seminar, tutorial and/or workshop or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

Assessment Two class papers, 50%; research essay, 50%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

BMO5589 INDUSTRIAL RELATIONS AND THE BUILDING INDUSTRY

(ENGINEERING SERVICE SUBJECT)

Campus City Flinders.

Prerequisite(s) Nil.

Content An introduction to industrial relations and a study of policy questions and techniques associated with the practice of industrial relations, specifically in the building industry. Topics covered include the industrial relations framework, the parties to industrial relations, negotiation principles, conflict resolution, industrial awards, legal aspects of employment and contemporary industrial relations issues.


Class Contact Equivalent to 36 hours per semester normally to be delivered as a combination of lecture, seminar, tutorial and/or workshop or a delivery mode as approved by the Faculty of Business and Law. Subject equal to 15 credit points.

Assessment Essay, 30%; class assignment and test 70%. Students must satisfactorily complete each component of the assessment to gain a pass in the subject. Supplementary assessment will not be available.

HDR0001 INTRODUCTION TO RESEARCH DESIGN AND METHODS

Campus St Albans, Footscray Park, Flinders Lane, Distance Education.

Prerequisite(s) Nil.

Content The content of this subject will provide an introduction to research methods and design for the social sciences. This will include a review of the scientific methods and ways of knowing, quantitative and qualitative paradigms, questionnaire design and evaluation, validity and reliability of research designs, ethical issues and evaluation of the research design of published papers. The subject will also include an introduction to sampling and methods of data collection and analysis for quantitative and qualitative research. The study of quantitative methods will focus on experimental, correlational and survey designs and of the corresponding methods of data analyses including descriptive and inferential statistics, correlation and regression and hypothesis testing. The qualitative research designs to be studied in some detail will be drawn from case study, ethnography, grounded theory, phenomenology, historical research, philosophical research and action research. The role of the researcher in collecting qualitative data will be discussed along with methods of analysing qualitative data.


Subject Hours Two hour seminar and one hour tutorial per week for one semester.

Assessment Research proposal or critique (50%); data analysis project (50%).

HDR0002 ADVANCED QUALITATIVE RESEARCH METHODS

Campus Footscray, St Albans, City Flinders Lane.

Prerequisite(s) HER0001 Introduction to Research Design and Methods; HHR0001 Introduction to Research Design and Methods; HFR0001 Introduction to Research Design and Methods or equivalent.

Content This subject provides students with advanced knowledge and skills in qualitative research methodologies and procedures. Topics include: major paradigms and theoretical perspectives of qualitative research; major qualitative research methodologies eg ethnography, grounded theory, phenomenology, poststructural/critical research, action research, case studies etc. Technique and procedures of advanced skills in data collection including participant and non-participant observational strategies, individual and group interviewing techniques, and unobtrusive strategies such as document analysis. Techniques for qualitative data analysis include using computers in qualitative data analysis.


Subject Hours Two-hour seminar and one-hour tutorial per week for one semester.

Assessment A research proposal, or approved assignments related to research literature and processes in professional practice (4000 words for Graduate Diploma students; 5000 words for Masters students) 100%.

HFR0001 ADVANCED QUANTITATIVE RESEARCH METHODS

Campus Footscray, St Albans, City Flinders Lane (as per student enrolment)

Prerequisite(s) One of HER0001 Introduction to Research Design and Methods, HHR0001 Introduction to Research Design and Methods, HFR0001 Introduction to Research Design and Methods or equivalent.

Content This subject provides a detailed examination of advanced quantitative methodologies, design and analyses as key elements of the research process, with an emphasis on the importance of experimental design and statistical decision making. The subject covers such topics as: the general linear model, analysis of variance and covariance, statistical power, multivariate designs including: multiple regression analyses, multivariate analysis of variance, and factor analysis. The subject also introduces students to the use of nonparametric data analyses and underlying reasons for choosing nonparametric over parametric statistical tests. Students will also receive practical experience in data analysis using the SPSSx computer package, however, the focus of the course will be on statistical analyses as a part of the total research process.


Subject Hours Two hour seminar and one hour tutorial per week for one semester.

Assessment Research proposal or critique (50%); data analysis project (50%).
Credibility and trustworthiness issues, ethical issues, and writing up of qualitative research will be discussed.

**Required Reading**

**Subject Hours**
Two hour seminar and one hour tutorial per week for one semester.

**Assessment**
Seminar paper on research design of a proposed project (50%); A written report on the process of data collection and analysis (50%).

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**HHA6115 MINOR THESIS (FULL-TIME)**

**HHA6116 MINOR THESIS (PART-TIME)**

**Campus** St Albans

**Prerequisite(s)**
Completion of Level 5 subjects or equivalent.

**Content**
The minor thesis is intended to provide students with an opportunity to undertake independent inquiry into an area of personal interest and applicable to their professional development.

The thesis will be a research paper of not less than 15,000 words and not more than 20,000 words. It will report on independently conducted research which demonstrates the student's ability to clearly define a research question, to undertake a critical review of the relevant literature. Data selection, collection and analysis skills should also be demonstrated. The thesis should involve a high standard of written communication skills. The chosen topic should allow the candidate to utilise a methodology applicable to a research question. It is intended that the topic chosen for investigation will be in consultation with an appropriate supervisor who will oversee the conduct of the research.

**Required Reading**

**Subject Hours**
Regular meetings with thesis supervisors.

**Assessment**
One 15,000-20,000 word paper.

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**HHC5531 CLINICAL PRACTICE 1**

**Campus** City Flinders

**Prerequisite(s)**
Nil

**Content**
The aim of the subject is to introduce students to osteopathic healthcare in the clinical setting, initially by observation of osteopathic practice, and later by the use of osteopathic diagnosis and treatment in their own practices. By the end of the subject students should be developing the ability to apply osteopathic concepts of diagnosis and treatment to their own patients in a clinical setting. content will include: Introduction to osteopathic clinical practice. To initially observe the osteopathic approach to health care provision and later apply osteopathic principles to the assessment and treatment of patients in their own practices. Clinical application of skills and attributes developed in the subjects: Osteopathic History & Principles 1, Osteopathic Diagnosis 1, Osteopathic Technique 1. Review of clinical cases by preparation and presentation of the clinical case book. Integration of medical and osteopathic approaches to patients with musculoskeletal pain and/or dysfunction. Supervised interaction and treatment of patients in the osteopathic medicine clinic and by mentoring with registered osteopathic practitioners in their own and osteopathic practices in their locality.

**Required Reading**

**Recommended Reading**

**Subject Hours**
City Campus clinic attendance @ 8 hours per residential unit (2 residential units per annum). Practice based learning 108 hours per annum. Practice based learning comprises: 36 hours of fieldwork spent with registered osteopathic practitioners completed over the year. There will be a close supervisory/mentoring relationship between selected local osteopathic practitioners and the student. 72 hours in their own practices applying osteopathic principles to the care of patients. Detailed casebooks will be kept outlining the presentation, examination, assessment, diagnosis, treatment, and outcomes. Each case will require discussion of osteopathic principles and practice referenced to standard osteopathic and medical texts, and research literature.

**Assessment**
Evidence of completion of hours, satisfactory reports from supervisors/mentors, examination of case-studies x 8, 100%

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**HHC5532 CLINICAL PRACTICE 2**

**Campus** City Flinders

**Prerequisite(s)**
HHO5501 Osteopathic History & Principles 1, HHO5511 Osteopathic Technique 1, HHO5521 Osteopathic Diagnosis 1, HHC5531 Clinical Practice 1; or equivalent.

**Content**
This subject aims to consolidate the students’ ability to work with osteopathic diagnosis and treatment techniques in a clinical setting, and to integrate the knowledge acquired in all subjects of the course. By the end of this subject the students should have the skills necessary to begin using osteopathic approaches on a regular basis with patients in their own clinics, and also have the necessary knowledge to pursue further postgraduate studies in osteopathy. content will include: Continuation of clinical practice subject allowing further development and refinement of osteopathic clinical skills in relation to the provision of patient care. Reinforcement of integrated clinical thought processes in the provision of holistic health care. Full case ‘work ups’ with oral presentations to peers. Integration of all academic course elements to provide for the provision of osteopathic health care to the benefit of patients.

**Subject Hours**
City Campus clinic attendance @ 8 hours per residential unit (one residential unit). Practice based learning 80 hours per annum. Practice based learning comprises: 36 hours of fieldwork spent with registered osteopathic practitioners completed over the year. There will be a close supervisory/mentoring relationship between selected local osteopathic practitioners and the student. 44 hours in their own practices applying osteopathic principles to the care of patients. Detailed casebooks will be kept outlining the presentation, examination, assessment, diagnosis, treatment, and outcomes. Each case will require discussion of osteopathic principles and practice referenced to standard osteopathic and medical texts, and research literature.

**Assessment**
Examination of case-studies x 6, 30%, Final clinical practice examination, 70% – short cases – long case – objective structured clinical exam.
HHD4739 DIAGNOSTIC IMAGING 1

Campus City Flinders
Prerequisite(s) Nil
Content The aim of the subject is to teach students the theory underlying radiological examination modalities, and to teach the recognition of pathological entities in a variety of imaging types. At the end of this subject the students should have an understanding of the theory and physics of various radiological examinations, and be able to recognise the radiological signs of common pathologies. The content will include: Physics of imaging. Imaging modalities, methods, safety procedures and regulations. Requesting radiographs. Normal variants. Congenital anomalies. Scoliosis. Trauma – fractures, dislocations etc. Infections. Arthritides. Tumour processes. Vascular abnormalities. Metabolic and endocrine abnormalities incl. Osteoporosis and Paget’s disease. Soft tissue pathologies. Respiratory disease. Abdominal viscera and visceral disease.


Subject Hours One-hour lecture per week for the first semester. Two hours per week for the second semester comprising one one-hour lecture and one one-hour workshop/tutorial or equivalent.

Assessment Written response slide exam at end of semester one, 100%; viva voce examination at end of semester two, 100%.

HHD4779 CLINICAL DIAGNOSIS AND MANAGEMENT 3

Campus City Flinders
Prerequisite(s) HHD3579 Clinical Diagnosis and Management 2; or equivalent.
Content The aim of the subject is to teach the students to recognise the clinical presentations of conditions affecting the named systems, and to understand the clinical tests and orthodox management protocols for them. By the end of the year the students should be able to recognise the clinical signs and symptoms of typical conditions affecting the named systems, carry out appropriate examinations, be able to interpret clinical tests, and understand the medical management of these conditions. Content will include: review of pathologies, but should also be aware of variations as seen in acquired in HHD4739 Diagnostic Imaging 1. Application to specific body regions. By the end of the course the students should not only be able to recognise the radiological presentation of typical conditions affecting the named systems, carry out appropriate examinations, be able to interpret clinical tests, and understand the medical management of these conditions. The content will include relevant issues in Paediatrics, Obstetrics, Otolaryngology and Psychiatry, Geriatrics and Dermatology, and common clinical presentations.

Required Reading The set of prepared Lecture notes is the only prescribed text for this course


Subject Hours Four hours per week or equivalent for two semesters comprising lectures, tutorials/workshops and practicals.

Assessment Semester one: Written examination, 30%; practical/viva voce, 20%. Semester two: Written examination, 30%; practical/viva voce, 20%.

HHD5739 CLINICAL DIAGNOSIS AND MANAGEMENT 4

Campus City Flinders
Prerequisite(s) HHD4779 Clinical Diagnosis and Management 3; or equivalent.
Content The subject aims to teach the students to recognise the clinical presentations of conditions affecting the named systems, and to understand the clinical tests and orthodox management protocols for them. By the end of the year the students should be able to recognise the clinical signs and symptoms of typical conditions affecting the named systems, carry out appropriate examinations, be able to interpret clinical tests, and understand the medical management of these conditions. The content will include relevant issues in Paediatrics, Obstetrics, Otolaryngology and Psychiatry, Geriatrics and Dermatology, and common clinical presentations.

Required Reading There are no specific required texts. Determining the appropriate resources will depend on individual learning needs. Important resources will be referred to during the relevant sessions. Students can refer to any appropriate text or learning resources in order to answer their group-determined learning needs.

Subject Hours Five hours per week for two semesters of small group discussion forums.

Assessment Written examination, 50%; assignment (2000 words) 50%.

HHD5749 DIAGNOSTIC IMAGING 2

Campus City Flinders
Prerequisite(s) HHD4739 Diagnostic Imaging 1; or equivalent.
Content The subject consolidates and expands on the knowledge acquired in HHD4739 Diagnostic Imaging 1. Application to specific body regions. By the end of the course the students should not only be able to recognise the radiological presentation of typical pathologies, but should also be aware of variations as seen in different body regions. Content will include: Review of pathologies by region using all imaging modalities: Skull, cervical spine, thoracic spine, chest, lumbar spine, abdomen incl. foetal screening, pelvis and hips, upper and lower limb.

Required Reading As for HHD4739 Diagnostic Imaging 1.

Recommended Reading As for HHD4739 Diagnostic Imaging 1.
HHG515 PHILOSOPHICAL CONCEPTS OF HEALING

Campus St Albans
Prerequisite(s) Nil
Content Approaches to healing throughout the world are embedded in notions of reality, truth, and values about health and illness. The subject explores the philosophies that underpin the major traditions of health and healing. Students are provided with the opportunity to explore and critically appraise the various philosophies. Areas of inquiry will include the general principles of: Oriental Medicine: Chinese and Japanese healing; Ayurveda and Yoga: Indian and Pranic healing; Naturopathy: European natural therapy; Australian Aboriginal healing; Western healing; Shamanistic healing practices. The opportunity to explore the philosophies underlying health and healing practices will provide a broad foundation for the study of the sensory and cognitive healing approaches in the course.


Recommended Reading To be advised by Lecturer.

Subject Hours A minimum of thirty-six (36) hours for one semester comprising lectures, tutorials seminars and self-managed learning.

Assessment Personal reflective journal; class participation/group work (40%); assignment (2000 words) (60%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHG5125 THEORETICAL FOUNDATIONS OF HEALING 1

Campus St Albans
Prerequisite(s) Nil
Corequisite(s) HHG5115 Philosophical Concepts of Healing; or equivalent.

Content This subject provides a theoretical foundation for the study of a range of approaches to health and healing examined during the course. Students will critically appraise the increasing body of literature and research related to the environmental, social, psychological and spiritual dimensions of health and illness. The subject provides a framework that unifies the diverse approaches to healing. The principles informing the understanding of innate healing tendencies and the interconnection of mind and body are studied.

Required Reading To be advised by lecturer.

Subject Hours A minimum of thirty-six (36) hours for one semester comprising lectures, tutorials seminars and self-managed learning.

Assessment Two written assignments (50% each). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment items (written assignments) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHG5135 HEALING 1: COLOUR, SOUND AND MOVEMENT

Campus St Albans
Prerequisite(s) Nil

Content This subject will facilitate the exploration of the concept of health and healing through exposure to the creative processes involved in visual, aural and kinaesthetic techniques. Health and healing are seen in their broadest dimensions as the interconnectedness of the entire living system with the environment. The power of music, art and movement to influence a person and the interaction between environment is explored. The therapeutic effects of self expression to develop individual capacities to their full potential are examined through the use of colour, sound and movement. The focus of the subject is on the maintenance of wellness, rather than a focus on pathology and illness.

Required Reading To be advised by Lecturer.

Subject Hours A minimum of forty-eight (48) hours for one semester comprising lectures, tutorials, seminars, and self-managed and experiential learning in the field.

Assessment Fieldwork presentation and journal, (40%); major assignment, (60%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (assignment) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHG5145 THEORETICAL FOUNDATIONS OF HEALING 2

Campus St Albans
Prerequisite(s) Nil

Content The subject further develops students’ knowledge of approaches to health and healing. Individual, group and family counselling theories are examined from both an Oriental and Western perspective. Within the counselling environment cultural differences will be explored and appropriate techniques applied.


Subject Hours A minimum of thirty-six (36) hours for one semester comprising lectures, tutorials seminars and self-managed learning

Assessment Personal reflective journal, (30%); theory paper (40%); evidence of participation (skills demonstration, evidence of reading, class discussion) (30%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item [theory paper] may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHG5245 HEALING 2: TACTILE THERAPIES

Campus St Albans
Prerequisite(s) HHG5135 Healing 1: Colour, Sound and Movement; or equivalent.

Content This subject provides the opportunity to further develop the knowledge and skills gained in Healing 1. The central focus of this subject is the conceptual and skill development of touch as a healing therapy. The therapeutic use of touch is a powerful healing tool utilised in may cultures to enhance growth and development in the young, promote and maintain well being, and to heal and comfort the sick. The conceptual, metaphysical and functional basis of Therapeutic Touch, Swedish massage and Shiatsu is studied from both an historical and contemporary perspective. The key principles of the therapeutic use of self, music, colour, scent and movement will be integrated into this unit.


Subject Hours A minimum of forty-eight (48) hours for one semester comprising lectures, tutorials seminars, self-managed learning and fieldwork.
HHH5255 HEALING 3: APPROACHES TO HEALING SKILLS

Campus St Albans
Prerequisite(s) HHR0001 Introduction to Research Design and Methods; or equivalent.

Content This subject builds on the key theoretical frameworks introduced in Theoretical Foundations of Healing Practice. Students are exposed to a broad range of techniques designed to teach individuals skills in maintaining well-being and equilibrium. The meaning of health and well being is explored in the context of the link between stress arousal and the disease process. A combination of approaches which influence healing skills are examined, for example the concept of stress as described by Cannon, Lazarus, Selye, Spiegel and Solomon. Various relaxation responses will be explored. The skills of autogenic training, progressive relaxation, deep muscle relaxation, visual imagery, biofeedback, self-awareness techniques and body breathing exercises are explored. The application of these skills is discussed in relation to a range of situations.

Required Reading To be advised by Lecturer.

Subject Hours A minimum of forty-eight (48) hours for one semester comprising lectures, tutorials seminars, self-managed learning and fieldwork.

Assessment Seminar presentation (20%); essay (40%); experiential workshop or fieldwork (40%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (essay) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH5265 RESEARCH PROJECT

Campus St Albans
Prerequisite(s) HHR0001 Introduction to Research Design and Methods; or equivalent.

Content This subject is the culminating unit and provides students with the opportunity to further develop and apply the knowledge and understanding acquired in previous subjects of the course. Students will use the proposal developed in HHR 0001 Introduction to Research Design and Methods and implement a literature-based project, which critically analyses an area of professional interest relating to the use of Chinese herbal medicine; or equivalent.


Subject Hours A minimum of thirty-six (36) hours for one semester comprising lectures, tutorials, seminars and self-managed learning.

Assessment Submission of completed project (5000 words) (100%). To obtain at least a Pass in the subject, normally all components of assessment must be attempted and passed. Failed assessment item (completed project) may be re-attempted and resubmitted once only. Maximum possible marks to be obtained on any resubmission will be 50%.

HHH5105 INTRODUCTION TO CHINESE HERBAL MEDICINE

Campus City Flinders or St Albans
Prerequisite(s) Nil
Corequisite(s) HHH5115 Clinical Pharmacology for Herbal Medicine; or equivalent.

Content The aim of this subject is to provide students with a detailed understanding of the theoretical foundations of Chinese herbal classifications and individual herbs. Specific attention will be given to 100 of the most common individual herbs, their energetic actions and functions, clinical application, combinations, preparations, precautions and contra-indications and TGA regulations as they currently exist in Australia.


Subject Hours The equivalent of three hours per week for one semester comprising of lectures and seminars.

Assessment Three-hour examination, 50%; assignment (2000 words), 50%. Students will be required to gain a pass in all assessment components.

HHH5115 CLINICAL PHARMACOLOGY FOR HERBAL MEDICINE

Campus City Flinders or St Albans
Prerequisite(s) Nil
Corequisite(s) HHH5105 Introduction to Chinese Herbal Medicine; or equivalent.

Content This subject provides students with the opportunity to develop an understanding of the principles underlying the actions of drugs, poisons and xenobiotics relating to the use of Herbal Medicine. The subject will provide an overview of the scope of pharmacology and toxicology with particular emphasis on the interrelationships between herbs and drugs. Topics addressed will include concentration response relationships, adsorption of drugs and xenobiotics, and drug and xenobiotic distribution. The metabolism of xenobiotics including roles in drug elimination, detoxification, production of toxic and mutagenic intermediates, excretion, pharmacokinetics and clearance will also be addressed. The students understanding of drugs used in major diseases in relation to drug mechanisms, basic pharmacokinetics, adverse reactions and interactions known to occur with herbal remedies will also be enhanced. Students will be introduced to the current scheduling process for therapeutic products.


Recommended Reading

Subject Hours The equivalent of three hours per week for one semester comprising lectures and tutorials.

Assessment Two-hour examination, 50%; written assignment [2000 words], 50%.

HHHS125 FORMULAS AND STRATEGIES (PCM) 1

Campus City Flinders or St Albans
Prerequisite(s) HHHS105 Introduction to Chinese Herbal Medicines, HHHS115 Clinical Pharmacology for Herbal Medicine; or equivalent.

Corequisite(s) HHHS135 Formulas and Strategies (PCM) 2; or equivalent.

Content This aim of this subject is to provide students with a detailed understanding of the theoretical foundations and clinical reasoning patterns of the following Chinese herbal classifications; diaphoretics (jie biao ji), harmonisers, [jie ji], heat eliminators (qing re ji), purgatives (xie xia ji) and internal warming formulae (wen li ji). Students will be provided with the opportunity to explore and understand the theoretical underpinnings of the representative formulae(s) for each of the herbal classifications, the energetic patterns associated with each of the respective formulae, the theoretical and clinical reasoning patterns explaining the development of modifications to principal formulae, appropriate dosage, treatment strategies, precautions, contra-indications and the issue of patient compliance. In exploring the theoretical foundations of the construction of herbal formulae significant attention will be given to classical sources and modern interpretations to inform student learning. The unit of study also concentrates on the various forms in which prepared Chinese medicines are delivered: pills, powders, soup mixes, decoctions, wines and external applications such as plasters.


Subject Hours The equivalent of three hours per week for one semester comprising of lectures and seminars.

Assessment Two-hour examination, 50%; written assignment [2000 words], 50%. Students will be required to gain a pass in all assessment components.

HHHS135 FORMULAS AND STRATEGIES (PCM) 2

Campus City Flinders, St Albans
Prerequisite(s) HHHS105 Introduction to Chinese Herbal Medicines, HHHS115 Clinical Pharmacology for Herbal Medicine; or equivalent.

Corequisite(s) HHHS135 Formulas and Strategies (PCM) 1; or equivalent.

Content This aim of this subject is to provide students with a detailed understanding of the theoretical foundations and clinical reasoning patterns of the following Chinese herbal classifications; tranquillisings/sedation formulae (an shen ji), qi regulators (li qi ji), xue regulators (li xue ji), dampness resolving (qu shi ji) and wind damp eliminators (qu feng shi ji). Students will be provided with the opportunity to explore and understand the theoretical underpinnings of the representative formula(s) for each of the herbal classifications, the energetic patterns associated with each of the respective formulae, the theoretical and clinical reasoning patterns explaining the development of modifications to principal formulae, appropriate dosage treatment strategies, precautions, contra-indications and the issue of patient compliance. In exploring the theoretical foundations of the construction of herbal formulae significant attention will be given to classical sources and modern interpretations to inform student learning. Attention will be given to the various forms in which prepared Chinese medicines are delivered: pills, powders, soup mixes, decoctions, wines and external applications such as plasters.


Subject Hours The equivalent of three hours per week for one semester comprising lectures and seminars.

Assessment Two-hour examination, 50%; written assignment [2000 words], 50%. Students will be required to gain a pass in all assessment components.

Subject Hours The equivalent of three hours per week for one semester comprising of lecture and seminar.

Assessment Two-hour examination, 50%; assignment (2000 words), 50%. Students will be required to gain a pass in all assessment components.

HHH5225 FORMULAS AND STRATEGIES (PCM) 3

Campus City Flinders, St Albans
Prerequisite(s) HHH5125 Formulas and Strategies (PCM) 1, HHH5135 Formulas and Strategies (PCM) 2; or equivalent.
Corequisite(s) HHH5235 Clinical Specialties (PCM); or equivalent.

Content This aim of this subject is to provide students with a detailed understanding of the theoretical foundations and clinical reasoning patterns of the following Chinese herbal classifications; tonification formulae (yu yi ji), anti-asthmatic/phlegm resolvers (ding chuan ji/shou hua tan zhi he), resuscitation formulae (kai qiao ji), dyspepsia relieving (xiao dao ji) and astringents (shao lian ji). Students will be provided with the opportunity to explore and understand the theoretical underpinnings of the representative formulae for each of the herbal classifications, the energetic patterns associated with each of the respective formulae, the theoretical and clinical reasoning patterns explaining the development of modifications to principal formulae, appropriate dosage treatment strategies, precautions, contra-indications and the issue of patient compliance. In exploring the theoretical foundations of the construction of herbal formulae significant attention will be given to classical sources and modern interpretations to inform student learning. The unit of study also concentrates on the various forms in which prepared Chinese medicines are delivered: pills, powders, soup mixtes, decoctions, wines and external applications such as plasters.


Subject Hours The equivalent of three hours per week for one semester comprising of lecture and seminar.

Assessment Two-hour examination 50%; one assignment of 2000 words, 50%. Students will be required to gain a pass in all assessment components.

HHH5235 CLINICAL SPECIALITIES (PCM)

Campus City Flinders, St Albans
Prerequisite(s) HHH5125 Formulas and Strategies (PCM) 1, HHH5125 Formulas and Strategies (PCM) 2; or equivalent.
Corequisite(s) HHH5225 Formulas and Strategies (PCM) 3; or equivalent.

Content This aim of this subject is to provide students with a detailed understanding of the theoretical foundations and clinical reasoning patterns of the following specialist areas of practice in Chinese medicine: obstetrics and gynaecology, paediatrics, and orthopaedics and traumatology. Students will be provided with the opportunity to explore, understand and assess critically the theoretical underpinnings of the representative formulae for each of the herbal classifications, the energetic patterns associated with each of the respective formulae, the theoretical and clinical reasoning patterns explaining the development of modifications to principal formulae, appropriate dosage treatment strategies, precautions, contra-indications and the issue of patient compliance. In exploring the theoretical foundations of the construction of herbal formulae significant attention will be given to classical sources and modern interpretations to inform student learning. The unit of study also concentrates on the various forms in which prepared Chinese medicines are delivered: pills, powders, soup mixtes, decoctions, wines and external applications such as plasters.


Subject Hours The equivalent of three hours per week for one semester comprising of lecture and seminar.

Assessment Two-hour examination 50%; one assignment of 2000 words, 50%. Students will be required to gain a pass in all assessment components.
HHH5245 PCM CLINICAL PRACTICUM

Campus City Flinders, St Albans
Prerequisite(s) HHH5225 Formulas and Strategies (PCM) 3, HHH5235 Clinical Specialities (PCM) or equivalent.

Content This subject provides students with the opportunity to integrate, consolidate and apply the information studied in the previous theoretical subjects under the instruction and guidance of an experienced practitioner of Chinese Herbal Medicine. Students will undertake diagnosis, clinical assessment and develop herbal prescriptions within the clinical setting.

Required Reading To be advised by lecturer.


Subject Hours The equivalent of eight hours per week for one semester, comprising workshop practicums and case conferences.

Assessment Two practical assessments, satisfactory/unsatisfactory; one journal report of clinical practice undertaken by the student in consultation with an experienced practitioner of Chinese Herbal Medicine, satisfactory/unsatisfactory. Students will be required to gain a pass in all assessment components.

HHH5001 CLINICAL INTERNAL MEDICINE

Campus City Flinders, St Albans
Prerequisite(s) Nil
Content This subject examines in detail traditional Chinese internal medicine based on the system of 52 disorders as specified in the major classic Jin Gui Yao Lue. The traditional classifications and treatment of illnesses – gan mao, ke sou, fei wei, ying xiang, chuan zheng, fei zheng, fei luo, tan yin, zi han, dao han, xue zheng, jing ji, zheng chong, xiong bi, xian zheng, wei tong, ye ge, ou tu, e ni, xie lie, li jin, huo luo, fei tong, bai bi, zhong tong, xue tong, huan dan, ji ju, gu zuang, tou tong, xuan yun, zhong feng, jing bing, ying liu, nue ji, shui zhong, lin zheng, bi zheng, wei zheng, nei shang fei, xu luo, ben lun qie, bu mei, duo mei, jian wu, jue zheng, yu zheng, dian kuang. Categories of clinical significance will be emphasised and additional disorders of relevance to clinical practice in Australia will be examined. The need to individualise prescriptions is stressed and case histories from the class are used to demonstrate this aspect.


Subject Hours Two hour seminars per week for one semester.

Assessment Two seminar presentations (each 25%); one assignment of 1,500 words (20%); final exam (30%). A pass must be gained for each component of the Assessment.

**HHK5001 SPORTS & MUSCULO-SKELETAL MEDICINE FOR ACUPUNCTURISTS**

**Campus** City Flinders, St Albans

**Prerequisite(s)** HHK5115 Acupuncture & Moxibustion 1; or equivalent.

**Content** This subject consolidates and further develops the student's skills in the Chinese Medical approach to sports performance enhancement and the diagnosis, treatment and management of sports injuries and musculo-skeletal disorders. The material covered will include the application of acupuncture, moxibustion, cupping, electro-acupuncture, point injection therapy, needle threading; through & through needling, needle embedding, tui na, laser therapy, magnet therapy, gau sha, ointments, poultices, plasters, exercise & rest, shi liao and nutritional supplements.


**Subject Hours** The equivalent of four hours per week for one semester comprising seminars, practical demonstrations, practice workshops and student presentations.

**Assessment** One oral practical assessment (35%); one test (35%); and one assignment (30%). A pass must be gained in each component of assessment.

**HHK5002 GYNAECOLOGY AND OBSTETRICS FOR ACUPUNCTURISTS**

**Campus** City Flinders, St Albans

**Prerequisite(s)** HHK5155 Acupuncture & Moxibustion 2; or equivalent.

**Content** Gynaecology: This subject consolidates and further develops the student's skills in the Chinese medical approach to gynaecology and obstetrics. Topics covered will include: the development of Chinese medical gynaecology; gynaecological physiology; pathology, aetiology, diagnosis, differentiation of gynaecological conditions; therapeutic principles and methods, disorders including menopauses, vaginal disorders, gynaecological disorders, post-partum disorders, miscellaneous diseases, and case studies. Obstetrics: Acupuncture obstetrics including contraindications & precautions, acupuncture treatment of disorders during pregnancy and labour, acupuncture induced labour, acupuncture assisted birth, the treatment of pain, anxiety and other conditions during labour, pre and post-natal care, the acupuncturist as part of the neonatal health practitioner team, birth options and settings; cultural perspectives on birth and birthing.


**Subject Hours** The equivalent of four hours per week for one semester comprising seminars, practical demonstrations and practice workshops.

**Assessment** Seminar presentation (25%); assignment of 1,500 words (25%); final exam (50%). A pass must be gained in each component of assessment.

**HHKL919 PHARMACOLOGY 1 (OSTEOPATHY)**

**Campus** City Flinders

**Prerequisite(s)** RBF2739 Biochemistry 2; or equivalent.

**Content** The subject aims to make osteopathic students aware of the development and testing process for drugs, and to acquaint them with the actions, interactions, adverse effects and implications for the osteopath of the drugs most commonly seen in osteopathic patients. By the end of the subject the students should have an understanding of the development and testing process for drugs and basic
pharmacological concepts such as pharmacokinetics and dynamics. They will have begun a detailed study of drug categories which will be continued in HHL4929 Pharmacology 2. Content will include: The development & testing process for drugs. Trends in drug research. The approval process and the Pharmaceutical Benefits Scheme. Generics vs. brands – reasons for differences in prescribing habits. Pharmacokinetics and pharmacodynamics. Toxicology issues. Overview of major drug categories, with emphasis on the implications for the osteopath – analgesics, non-steroidal anti-inflammatories, cortico-steroids, oral contraceptives and derivatives, drugs used in infection control, hypnotics and anxiolytics.

Required Reading HHL3919 Pharmacology 1 CD ROM – VUT. Students should also obtain a copy of the most recent edition of MIMS or the Australian Drug Guide.


Subject Hours Equivalent of two hours per week for one semester comprising self-directed study from dedicated CD ROM and tutorials/workshop sessions.

Assessment Written examination, 100%.

HHL4029 NUTRITION AND DIET 1
Campus City Flinders
Prerequisite(s) HHL3919 Pharmacology 1; RBF2739 Biochemistry 2; or equivalent.

Content The subject aims to introduce students to nutritional theory and revise the physiology of nutrition. To consider the relationship of food to disease and obtain an overview of eating disorders. At the completion of the subject students should have an understanding of the role of food in disease, what constitutes a balanced diet, and what factors may be involved in eating disorders. content will include: Definition and terms. The balanced diet – omnivore, vegetarian etc. Diet and disease. Nutritional deficiency; aetiology, pathogenesis, prevention and dietary treatment. Obesity. Anorexia and Bulimia. Introduction to concepts of dietary therapy.


Subject Hours Two hours per week for one semester comprising one-one hour lecture and one one-hour tutorial or equivalent.

Assessment Written examination, 60%; assignment, (2000 words) 40%.

HHL4929 PHARMACOLOGY 2 (OSTEOPATHY)
Campus City Flinders
Prerequisite(s) HHL3919 Pharmacology 1 [Osteopathy] ; or equivalent.

Content The subject aims to expand and consolidate knowledge acquired in the subject HHL3919 Pharmacology 1. By the end of the course students should have an understanding of the actions, interactions and adverse effects of the major drugs seen in osteopathic practice, and should have an understanding of referral procedures and ethical issues. Content will include: Continuing overview of major drug categories – actions, indications, contra-indications, interactions, adverse effects and implications for the osteopath of the following drugs: Drugs used in gastro-intestinal problems and cardiovascular conditions. Drugs affecting the central nervous system. Drugs used in endocrine disorders. Cytotoxics and immunosuppressants. Immunisation and the immunisation debate. Recreational drugs and effects of substance abuse.

Required Reading As for HHL3919 Pharmacology 1.

Subject Hours Equivalent of two hrs per week for one semester comprising self-directed study from dedicated CD ROM and tutorials/workshops.

Assessment Written examination, 100%.

HHL4939 RESEARCH 1
Campus City Flinders
Prerequisite(s) HHL3919 Pharmacology 1; or equivalent.

Content The subject aims to assist and facilitate the preparation of a proposal and ethics documentation for the minor thesis required for the completion of the Master of Health Science – Osteopathy course. By the end of the year the students should have successfully completed their Masters by coursework proposals and ethics documents, and should be working on data collection. content will include: Preparation of a research project proposal and ethics documentation including the necessary literature search. The project itself is to be completed during Year 1 of the Masters Degree either as a minor dissertation or as a paper for publication. The project will need to be presented to the Ethics and Research Committee and passed by that committee prior to being implemented.

Required Reading As for HHL3439 Biometry 3.

Recommended Reading This will depend on the research topic to be undertaken. It should have some reference to osteopathy.

Subject Hours Two hours of tutorial/workshop & two hours self-directed study with access to supervisors per week for semester one. two hrs self-directed study with access to supervisors per week for semester two.

Assessment Oral presentation of project proposal, acceptance of proposal 50%and ethics documentation, 50%.

HHL5049 NUTRITION AND DIET 2
Campus City Flinders
Prerequisite(s) HHL4029 Nutrition and Diet 1; or equivalent.

Content The subject aims to study the role of various nutrients in both health and disease and to investigate the concept of food as medicine and consider naturopathic concepts. By the end of the course the students should have sufficient knowledge to be able to recognise nutritional deficiencies and eating disorders in patients, and to act appropriately in those situations. The following topics will be discussed in lectures, Carbohydrates, Fats, Proteins, Vitamins, Minerals, The Healthy Diet, Diet and Disease, Food Hygiene and Naturopathic concepts. Tutorials will address issues arising from both the core tutorial exercise of keeping a food diary for one week which is subsequently analysed and from topics that are stimulated by lectures and discussion.

Required Reading As for HHL 4029 Nutrition and Diet 1.

Subject Hours Two hours per week or equivalent for one semester comprising lectures and tutorials/workshops.

Assessment Food diary, 40%; assignments, 60%.

HHL5959 RESEARCH 2
Campus City Flinders
Prerequisite(s) HHL3439 Biometry 3; HHL4939 Research 1; or equivalent.

Content The subject aims to facilitate the successful completion of the Masters of Health Science – Osteopathy minor thesis. By the end of this course the students should have completed their minor thesis, and will have acquired the research skills necessary for further research projects. The minor research thesis which was prepared during in the year one of the Master of Health Science – Osteopathy, should be completed and written up for assessment. All students are
expected to complete the project as a minor thesis or paper for publication. Supervisors will assist where necessary.


Subject Hours Five hours per week over two semesters. This is independent research in addition to regular meetings with student supervisors throughout the duration of the subject.

Assessment Oral Presentation of Project: 30%; Written presentation of Thesis (12,000-20,000 words) or Treatise (4000-5000 words): 70%. All work will be assessed by examiner[s] selected by the Subject co-ordinator who are independent of the work submitted.

HHM6800 RESEARCH THESIS (FULL-TIME)

Campus Footscray Park
Prerequisite(s) Eligibility for entry to a Masters by Research or Doctor of Philosophy program.
Content This subject, the aim of which is to enable students to competently research an area of study utilising knowledge and skills gained in previous studies, consists of a project carried out by students on an individual basis. The project is expected to be an investigation of an approved topic, followed by the submission of a suitably formatted thesis in which the topic is introduced and formulated; the investigation described in detail; results and conclusions from the study elaborated; and an extended discussion presented. Students may be required to undertake some lecture courses, as specified at the time of commencement.
Required Reading To be advised by supervisor.
Subject Hours Independent research in addition to regular meetings with the student supervisors.
Assessment The thesis will normally be assessed by at least two expert examiners from an appropriate area of expertise.

HHM6801 RESEARCH THESIS (PART-TIME)

Campus Footscray Park
Prerequisite(s) Eligibility for entry to a Masters by Research or Doctor of Philosophy program.
Content This subject, the aim of which is to enable students to competently research an area of study utilising knowledge and skills gained in previous studies, consists of a project carried out by students on an individual basis. The project is expected to be an investigation of an approved topic, followed by the submission of a suitably formatted thesis in which the topic is introduced and formulated; the investigation described in detail; results and conclusions from the study elaborated; and an extended discussion presented. Students may be required to undertake some lecture courses, as specified at the time of commencement.
Required Reading To be advised by supervisor.

Subject Hours Independent research in addition to regular meetings with the student supervisors.
Assessment The thesis will normally be assessed by at least two expert examiners from an appropriate area of expertise.

HHO4589 OSTEOPATHIC SCIENCE 4

Campus City Flinders
Prerequisite(s) HHO3175 Osteopathic Science 5; or equivalent.
Content The subject aims to expand the scope of students' technical and clinical skills, building on the foundations gained in the HBO3 course. Additional osteopathic techniques will be taught, there will be a continuing emphasis on preventive care, including clinical ergonomics, and there will be an introduction to patient management skills. By the end of this subject the students should have further expanded their technical range, and should be aware of aspects of patient and practice management which will then be studied further in year two of the Master of Health Science – Osteopathy. Content will include: the various models of osteopathic treatment. Strain/Counterstrain and functional techniques. Clinical ergonomics for osteopaths, incl. occupational health. Problems of patient management – time management, treatment of infants, children the elderly and disabled, osteopathy and the law, medical letter and report writing, the role of osteopathy in overall healthcare management. Presentation of patient information – case conferencing.
Recommended Reading D’Ambrogio KJ and Roth GB, 1997 Positional Release Therapy, Mosby, St. Louis.
Subject Hours Five hours per week or equivalent for two semesters comprising lectures, tutorials/workshops and practical sessions.
Assessment Semester one: practical examination, 30%; assignment 2000 words, 20%; Semester two, practical examination, 30%; assignment 2000 words, 20%.

HHO5501 OSTEOPATHIC HISTORY & PRINCIPLES 1

Campus City Flinders
Prerequisite(s) Nil
Content The subject aims to introduce students to the historical origins and development of osteopathy as a therapy, to its theoretical principles and the research basis for osteopathic theory, and to the concepts underlying osteopathic diagnosis and therapeutic approaches. At the conclusion of the subject students should have an understanding of osteopathic history and theory, and should have developed an understanding of the principles of osteopathic diagnosis and osteopathic therapeutics. Content will include: Terminology. Historical development of osteopathic medicine as a primary health care field. Philosophy of osteopathic health care to include examination of osteopathic principles both theoretical and those that have some evidence based upon research. Development of the conceptual framework for osteopathic practice. Consideration of the functioning of the individual as a whole. ART Asymmetry, Range of motion, Tissue texture change and the application of this principle to patient care. The historical context and development of the ‘osteopathic lesion’ and its implication to osteopathic practice and health. Somatic dysfunction, its diagnosis including barrier principles. Somatic dysfunction and its relationship to disease causation/treatment. Deviations of health or ‘wellness’ into metabolic, hormonal, neural, enzymatic, psychological etc disturbances and the osteopathic treatment approach to each.
Integration of the osteopathic treatment prescription.


**Subject Hours** 10 hours per residential unit one residential unit comprising lectures, tutorials and workshops.

**Assessment** 3000 word assignment, 30%; written examination, 70%.

**RHOS509 OSTEOPATHIC SCIENCE 5**

**Campus** City Flinders

**Prerequisite(s)** HHO4589 Osteopathic Science 4; or equivalent.

**Content** The subject aims to complete the teaching of osteopathic techniques; to further emphasise preventive care via exercise prescription, and to teach the students the business and administrative skills required to run a practice. By the end of this subject the students should be competent in a broad range of osteopathic techniques, and should be able to advise patients on a broad range of preventive healthcare options. They should have the business and administrative skills necessary to open and run their own practices. content will include: Reinforcement of ethical and interprofessional issues. Viscer al osteopathy. Cranio-sacral osteopathy. Advanced osteopathic technique – refinement and further development of techniques. Practice management – how to set up and operate a practice, incl. accounting and tax planning. Exercise prescription for specific purposes and conditions. Orthopaedic surgical procedures and their implications for osteopaths. The osteopath in practice – public health issues, the healthcare system and the place of osteopathy, government health policy and the economic imperative in healthcare.


**Subject Hours** Six hours per week or equivalent for two semesters comprising lectures, practicals and workshops.

**Assessment** Semester one: practical examinations, 40%; Semester two: practical examinations, 40%; assignment 2000 words, 20%.

**RHOS551 OSTEOPATHIC TECHNIQUE 1**

**Campus** City Flinders

**Prerequisite(s)** Nil

**Content** This subject aims to introduce students to basic osteopathic techniques for both soft tissues and articular structures, including articular, muscle energy and high velocity, low-amplitude thrust techniques, and to develop the palpatory skills needed for their successful application. On completion of the subject the students should be able to locate and assess dysfunctional tissues, and should be able to apply the techniques taught to most areas of the musculoskeletal system. They should also be aware of contraindications to the use of these techniques. content will include: Technique will include the development of high level palpatory skills to facilitate an awareness of the characteristics of both normal and dysfunctional tissues. Spinal segmental palpatory examination. Basic soft tissue techniques applicable to the musculoskeletal system. The use of long and short levers to induce motion within the musculoskeletal system. Articulatory techniques as applicable to:
Prerequisite(s)
Diagnosis and Manipulative Technique

Introduction to Muscle Energy Techniques MET – principles and application to all soft tissues and joints of the body to normalise

HHO5512 OSTEOPATHIC TECHNIQUE 2

Campus City Flinders
Prerequisite(s) HHO5501 Osteopathic History & Principles 1, HHO5511 Osteopathic Technique 1, HHO5521 Osteopathic Diagnosis 1, HHC5531 Clinical Practice 1; or equivalent.
Content This subject aims to expand the range of osteopathic manual techniques that the students can use, and will include additional high velocity, low amplitude thrust techniques for junctional areas, plus introduction to osteopathic indirect techniques, and the cautions and contraindications for these. By the completion of this subject, the students will have a basic grounding in all of the commonly used osteopathic techniques, and will have an awareness of their appropriate application and the contraindications to their use. Content will include: Further development of osteopathic palpatory skills with awareness of the nature of the forces used; analysis of skills into categories of rhythmic, low velocity stress and thrust techniques. Development of the ability to formulate a suitable treatment program for a variety of patients and clinical conditions considering age, occupation, life style etc. Further development of osteopathic skills and the use of leverages in osteopathic treatment regimes. High Velocity Low Amplitude HVLA thrust techniques to the junctional areas of the spinal column. To include: Atlanto-occipital joint, Atlanto-axial joint, Cervico-dorsal junction, Dorso-lumbar junction, Lumbo-sacral articulation. HVLA thrust to the ribs and pelvis. Continued development of skills in the application of soft tissue, articulation and muscle energy techniques. Introduction to the following technical approaches: Fascial release, Neuromuscular technique/inhibition, Functional technique, Strain/counterstrain, Visceral osteopathy, Cranio-sacral techniques. Common and less common clinical presentations – the various osteopathic treatment approaches to these.


Subject Hours 50 hours for residential unit 1 and residential unit 2, comprising lectures, practical labs and workshops. Optional elective component: This elective must be eligible for the award of continuing medical education CME credits from statutory osteopathic accrediting agencies and be agreed by the course co-ordinator. Exemption will be for attendance hours only. Students will be expected to successfully complete all examinations.

Assessment Practical & viva voce examinations, 100%.

HHO5521 OSTEOPATHIC DIAGNOSIS 1

Campus City Flinders
Prerequisite(s) Nil

Content This subject aims to teach students the skills required to take an osteopathic case history and carry out a full osteopathic physical examination. By the conclusion, the students should be able to take a full osteopathically-oriented case history and carry out an osteopathic physical examination using observation, palpation and motion testing. Content will include: The osteopathic case history. Emphasis will be placed upon the role of predisposing, precipitating and maintaining factors in the development of an osteopathic diagnosis and prognosis. The importance of observation of the patient prior to palpatory examination will be stressed. Special attention will be placed upon: Erect and sitting posture, Gait, Occupational and environmental stresses. Recognition of contraindications to the use of osteopathic techniques from the history, examination, and special investigations. The importance of segmental spinal examination in the formulation of a mechanical/motion diagnosis. Osteopathic considerations in systemic dysfunction.


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Subject Hours 15 hours for residential unit 1 and residential unit 2 comprising lectures, workshops and practical labs.

Assessment Practical examinations, 50%; assignments, 50%.

HHO5522 OSTEOPATHIC DIAGNOSIS 2

Campus City Flinders

Prerequisite(s) HHO5501 Osteopathic History & Principles 1, HHO5511 Osteopathic Technique 1, HHO5521 Osteopathic Diagnosis 1, HHC5531 Clinical Practice 1; or equivalent.

Content The subject aims to consolidate and further develop knowledge acquired in the subject HHO5521 Osteopathic Diagnosis 1. Consideration will be given to causes of orthopaedic and osteopathic dysfunction, to the formulation of osteopathic differential diagnoses, and to the formulation of a comprehensive osteopathic treatment plan. The students will be able, at the end of the subject, to carry out full orthopaedic and osteopathic assessment of patients, to formulate osteopathic differential diagnoses, and to devise a treatment plan suitable for individual patients, taking all safety aspects into consideration. Content will include: evaluation of musculoskeletal system dysfunctions. Osteopathic differential diagnosis. Formulation of structured and sequenced treatment prescriptions arising from osteopathic diagnosis. Detection of somatic dysfunction. Abnormalities of spinal mechanics: congenital, acquired and developmental. Osteopathic considerations in systemic dysfunction. Review of literature and manipulative therapy critique.


Subject Hours 15 hours per residential unit for both residential programs comprising lectures, tutorials and workshops.

Assessment Practical examination, 50%; assignment, 50%.

HHR0001 INTRODUCTION TO RESEARCH DESIGN AND METHODS

Campus Footscray Park, St Albans, City Flinders Lone

Prerequisite(s) Nil

Content The content of this subject will provide an introduction to research methods and design for the social sciences. This will include a review of the scientific methods and ways of knowing, quantitative and qualitative paradigms, questionnaire design and evaluation, validity and reliability of research designs, ethical issues and evaluation of the research design of published papers. The subject will also include an introduction to sampling and methods of data collection and analysis for quantitative and qualitative research. The study of quantitative methods will focus on experimental, correlational and survey designs and of the corresponding methods of data analyses including descriptive and inferential statistics, correlation and regression and hypothesis testing. The qualitative research designs to be studied in some detail will be drawn from case study, ethnography, grounded theory, phenomenology, historical research, philosophical research and action research. The role of the researcher in collecting qualitative data will be discussed along with methods of analysing qualitative data.


Subject Hours Two hour seminar and one hour tutorial per week for one semester.

Assessment A research proposal, and/or approved assignments related to research literature and processes in professional practice (3000 words for Graduate Diploma students; 5000 words for Masters, PhD students) 100%.

HHS4039 PSYCHOLOGY AND SOCIAL SCIENCE 2

Campus City Flinders

Prerequisite(s) HHS3171 Psychology and Social Sciences 1; or equivalent.

Content The subject aims to develop the interpersonal skills required of a practitioner in practice, and to develop an understanding of the psychology of pain and how pain may be managed as well as introduction to psychopathology. By the end of the subject the student should have a broad understanding of the factors affecting successful communication with a patient, and the psychology of pain and pain management as well as an understanding of psychopathology. Content will include: Communication skills – attending and listening, feedback, empathy, probing, identifying and clarifying problems, ethics. Psychology of pain and pain management – pain theories and measurement, psychosocial factors, placebos and expectations, description and categories of pain, managing acute and chronic pain, multicomponent pain treatment.

Required Reading Communication skills , the psychology of pain and psychopathology cover widely differing areas of psychology and are not adequately covered by single texts. A range of book and journal article references will therefore be supplied as appropriate for each topic, and students are in addition encouraged to read widely on the subject.

Subject Hours Two hours per week for two semesters comprising lectures and tutorials/workshops.

Assessment Assignments Semester One: Assignment (videotape) 50%. Semester Two: written exam 25%, written report 25%
HHT1127 MINOR THESIS (FULL-TIME)

HHT1137 MINOR THESIS (FULL-TIME)

HHT1147 MINOR THESIS (PART-TIME)

HHT1157 MINOR THESIS (PART-TIME)

Campus St Albans
Prerequisite(s) Nil

Content The minor thesis provides students with an opportunity to extend their knowledge and ability to critically analyse issues specific to primary health care and to engage in independent inquiry in an area of professional interest. The thesis will be a research paper and will provide evidence of independent research which demonstrates the ability to define a problem, undertake a detailed literature review, develop a research design appropriate to the topic and collect and analyse, interpret and present data. The thesis should demonstrate a high standard of written communication skills. A supervisor will be appointed to support and oversee the student’s research according to guidelines established by the Department of Health Sciences.

Required Reading To be advised by supervisor.

Subject Hours HHT1127 Minor Thesis (full-time), nine hours per week in semester one; HHT1137 Minor Thesis (full-time), twelve hours per week in semester two; HHT1147 Minor Thesis (part-time), three hours per week in semester one; HHT1157 Minor Thesis (part-time), six hours per week in semesters two, three and four.

Assessment One 15,000–20,000 word paper.

HHT5001 ADVANCED CHINESE MEDICINE CLINICAL PRACTICE 1

Campus St Albans or Metropolitan Clinics
Prerequisite(s) Nil

Content The clinical experience is the prime source of client contact for the student. The clinical internship is designed in a way that the student can work as a prime contact practitioner under supervision in the Health Practice Unit or other approved setting. The clinical setting will provide opportunities for the student to incorporate and utilise the knowledge based relevant to their Chinese medical specialty in order to enhance their skills as a practitioner. The Chinese relationship between medical knowledge and its role in health maintenance and illness prevention. Case conferencing sessions whereby students practice experience.


Subject Hours Eight hours per week for one semester consisting of clinic and case conferencing.

Assessment practical case reports (30%); oral exam (30%); practical exam (20%); satisfactory report from clinical supervisor (20%); and completion of required hours. a pass must be gained for each component of the assessment.

HHT5002 RESEARCH PROJECT

Campus St Albans
Prerequisite(s) HHR0001 Introduction to Research Design and Methods; or equivalent.

Content Students will undertake an approved literature based study resulting in the production of a scholarly paper, on an approved Chinese medicine, suitable for publication in an academic/professional journal.


Subject Hours The equivalent of 65 hours for one semester comprising of seminars, independent research and mentorship.

Assessment The presentation of one scholarly paper of 4000-5000 words, on an approved CM topic, suitable for publication in an academic/professional journal (100%).
### HHT5003 Counselling Skills for Chinese Medicine Practice

**Campus** St Albans  
**Prerequisite(s)** Nil  
**Content** An introduction to the role of being a counselor. The counselor/client relationship. The following theories will be covered: Psychoanalytic, Aderidian, Existential, Person Centred, Gestalt, Reality, Behavioral, Cognitive, Family systems, Ego State Therapies, as well as meditation, relaxation therapy. Ethical and legal issues of counselling.  
**Subject Hours** The equivalence of 39 hours per semester over one semester of 13 weeks.  
**Assessment** Seminar presentation (25%); class participation (25%); written theory assignment of 2000 words (50%). A pass must be gained for each component of the assessment.

### HHT5004 Advanced Chinese Medicine Clinical Practice 2

**Campus** St Albans or Metropolitan Clinics.  
**Prerequisite(s)** HHT5001 Advanced Chinese Medicine Clinical Practice 1; or equivalent.  
**Content** The clinical experience is the prime source of client contact for the student. Having gained clinical experience in the subject Clinical Practice. The student will undertake a continuing clinical internship under the guidance and direction of an experienced Chinese medical clinician in the Health Practice Unit. The clinical setting will provide opportunities for the student to incorporate theoretical knowledge in the practice situation to enhance their skills as a practitioner.  
**Subject Hours** Eight hours per week for one semester consisting of clinical and case conferencing.  
**Assessment** Practical case reports (30%); oral exam (30%); practical exam (20 %); satisfactory report from clinical supervisor (20%); and completion of required hours. A pass must be gained for each component of the assessment.

### HHU4129 Clinical Practicum 4

**Campus** City Flinders, St Albans  
**Prerequisite(s)** HHU3175 Clinical Practicum 5; or equivalent.  
**Co-requisite(s)** HHD4779 Clinical Diagnosis and Management 3; HHO4589 Osteopathic Science 4; HHY4639 Pathology 3; or equivalents.  
**Content** This subject further improves and consolidates students’ clinical skills in the same areas of diagnosis, technique and patient management. At the completion of the subject, students should have progressed in their diagnostic and technical skills to the point where they are increasingly able to take responsibility for patients as primary clinicians. In addition to this, the subject advances the student skills in: osteopathic technique, medical and osteopathic diagnosis, and case management; to develop integrated problem-based thought; counselling and nutritional assessments; to introduce students to business practice; increase responsibility as primary clinicians. The subject will also include practical sessions relating to case oriented medical and osteopathic evaluation and management; written and oral case presentations; radiological and other investigative tutorials; and field visits.  
**Required Reading** To be advised by Lecturer.  
**Recommended Reading** To be advised by Lecturer.  
**Subject Hours** At least eight (8) hours per week for 40 weeks, plus 100 hours of external placements. Total: At least 420 hours of attendance.  
**Assessment** Completion of required hours of attendance (420 hours) (hurdle requirement); skill assessments and patient contacts (as recorded in clinical diary); presentation of full case histories; completion of patient referral and health practitioner referral letters; clinical skills tasks; end of course combined practical and oral examination (hurdle requirement).

### HHU5129 Clinical Practicum 5

**Campus** City Flinders, St Albans  
**Prerequisite(s)** HHD4400 Clinical Diagnosis & Management 4; HHO4589 Osteopathic Science 4; HHU4129 Clinical Practicum 4; HHY4404 Pathology 4; or equivalents.  
**Content** Further advancement of skills in medical and osteopathic diagnosis, ethics and business practice, advanced technique skills, and total case management. Reinforcement of integrated clinical thought from a holistic perspective via case conferencing; with written and oral presentations to peers; tutorials on advanced skills in dealing with difficult and problematic cases; and in advanced investigative skills (radiological, medical). Field visits to health care facilities and external placements.  
**Recommended Reading** To be advised by Lecturer.  
**Subject Hours** Semesters One and Two: At least eight (8) hours per week clinical sessions for 40 weeks, plus two hours per week case conferencing workshops for 24 weeks; 30 hours of holiday hours; 40 hours of external placements. Total: At least 438 hours of attendance.  
**Assessment** Completion of required hours of attendance and patient contacts over two semesters [as recorded in clinical diary] (438 hours) (hurdle requirement); 2 x tutor assessments of consultations; completion of patient referral and health practitioner referral letters; clinical skills tasks; 2 x end-of-course combined practical and oral examinations (hurdle requirements); one 3-hour written examination. Where the final examination is failed, a supplementary examination will be offered. The maximum possible mark on the supplementary examination will be 50%.
**HHWS105 MATERIA MEDICA 1**

**Campus** City Flinders  
**Prerequisite(s)** Nil  
**Content** This subject will introduce students to phytochemical and pharmaceutical principles as they relate to herbal medicines. In addition this subject will enable students to identify fresh plant materials used in herbal medicine. Teaching will focus on the nature of the bioactive principles and their interaction with human pathological processes where possible. Emphasis will be on the pharmacology of herbal medicine as it pertains to clinical practice. The subject will cover the main classes of phytochemical compounds. Attention will be given to the toxicity of plants and their constituents.  
**Subject Hours** 39 hours for one semester.  
**Assessment** Examination, 70%; field report, 30%.

**HHWS115 MATERIA MEDICA 2**

**Campus** City Flinders  
**Prerequisite(s)** HHWS105 Materia Medica 1; or equivalent.  
**Content** This subject will introduce the student to the materia medica of Western Herbal Medicine and to the clinical application of individual plants. The subject will examine in detail the phytochemistry, history, horticulture, ecology, actions, indications, combinations, contra-indications and toxicity of the principal western herbal medicines used in clinical practice. Skills in medicinal plant research will also be introduced.  
**Subject Hours** 39 hours for one semester.  
**Assessment** Medicinal plant monograph, 70%; examination, 30%.

**HHWS125 HERBAL THERAPEUTICS 1**

**Campus** City Flinders  
**Prerequisite(s)** Nil  
**Content** In this subject students are introduced to the underlying principles that inform the therapeutic practice of Western Herbal Medicine. Students are also introduced to the treatment and management of diseases affecting the various organs and organ systems of the body using Western herbal medicines. The identification of conditions and presentations requiring immediate referral will be addressed.  
**Subject Hours** 39 hours for one semester.  
**Assessment** Examination, 50%; assignment, 50%.

**HHWS135 CLINICAL PRACTICUM (WHM) (FULL-TIME)**

**Campus** St Albans  
**Prerequisite(s)** Nil  
**Content** The clinical practicum is the prime source of client contact for the student. The student will undertake a clinical practicum throughout their course under the direction of experienced Western Herbal Medicine practitioners in their private clinics or other suitable agencies. The clinical setting will provide opportunities for the student to incorporate and utilise the theoretical knowledge gained in order to enhance their skills as a practitioner.  
**Subject Hours** Two hours per week for four semesters.  
**Assessment** Satisfactory completion of this subject will require satisfactory reports from all clinical supervisors throughout the duration of this subject, Satisfactory/Uncertain.

**HHWS145 HERBAL THERAPEUTICS 2**

**Campus** City Flinders  
**Prerequisite(s)** HHWS125 Herbal Therapeutics 1; or equivalent.  
**Content** In this subject the principles and practice of treating disease using Western herbal medicines are further developed. The application of Western herbal medicines to particular conditions affecting the various organs and organ systems of the body will be further developed.  
**Subject Hours** 39 hours for one semester.  
**Assessment** Examination, 50%; assignment, 50%.  

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**POSTGRADUATE SUBJECT DETAILS**

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HHWS155 CLINICAL PRACTICUM (WHM) (PART-TIME)

Campus City Flinders
Prerequisite(s) Nil
Content The clinical practicum is the prime source of client contact for the student. The student will undertake a clinical practicum throughout their course under the direction of experienced Western Herbal Medicine practitioners in their private clinics or other suitable agencies. The clinical setting will provide opportunities for the student to incorporate and utilise the theoretical knowledge gained in order to enhance their skills as a practitioner.
Subject Hours Two hours per week for four semesters.
Assessment Satisfactory completion of this subject will require satisfactory reports from all clinical supervisors throughout the duration of this subject, Satisfactory/Unsatisfactory.

HHWS165 MATERIA MEDICA 3

Campus City Flinders
Prerequisite(s) HHWS105 Materia Medica 1; or equivalent.
Content This subject will complete the study of individual plant medicines and their clinical application. The preparation of tinctures, fluid extracts, and external applications will also be covered. Attention will be given to simple laboratory separation procedures and quality control.
Subject Hours 39 hours for one semester.
Assessment Examination, 50%; practical Assessment, 50%.

HHWS175 HERBAL THERAPEUTICS 3

Campus City Flinders
Prerequisite(s) HHWS125 Herbal Therapeutics 1; or equivalent.
Content In this subject the principles and practice of treating disease using Western Herbal Medicine is further developed. The application of Western herbal medicines to particular conditions affecting the various organs and organ systems of the body will further developed. Students will also explore the many facets of the client/practitioner relationship.
Subject Hours 39 hours for one semester.
Assessment Assignment, 50%; oral Assessment, 50%.
management. Recognising common life-threatening conditions. Giving preventive health advice about common disease. Semester one will cover common and life-threatening diseases affecting the Cardiovascular, Respiratory and Gastrointestinal and endocrine systems. Semester two will cover the renal, genitourinary and haematological systems.

**Required Reading**


**Subject Hours**

Three hours per week for two semesters comprising two one-hour lectures and one one-hour tutorial/practical workshop sessions or equivalent.

**Assessment**

Semester one written examination, 35%; class presentation (either semester one or semester two), 30%; written examination, semester two, 35%.

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**HNA5001 GERONTIC NURSING STUDIES 1**

**Campus** St Albans, Off Campus

**Prerequisite(s)** Nil

**Content** This subject will introduce the student to major biological, psychological and sociological theories relating to ageing. The emphasis on ageing as a normal process is designed to both promote a positive view of ageing and to enable students to differentiate between changes associated with the ageing process and those associated with pathology when assessing clients and managing nursing care across a variety of healthcare contexts. An introductory consideration of major psychopathological and pathophysiological changes potentially encountered by ageing individuals will be undertaken by way of contrasting them with normal ageing. Topics to be addressed include: ageing demographics; ageing and physical function; ageing and cognition; life stages; ageism; polypharmacy; social relationships and ageing.

**Required Reading**


**Recommended Reading**


**Subject Hours**

The equivalent of three hours per week over one semester organised according to the teaching mode used.

**Assessment**

Assignment of 3000 words (60%); case study of 2000 words & class presentation (40%).

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**HNA5002 GERONTIC NURSING STUDIES 2**

**Campus** St Albans, Off Campus

**Prerequisite(s)** Nil

**Content** Building on the concept of ageing as a normal process introduced in Gerontic Nursing Studies 1, this subject will introduce the student to the nursing assessment and management of major pathophysiological and psychopathological alterations to health status associated with ageing. Topics include the consideration of more common pathologies such as arthritis, osteoporosis, airways disease, cardiovascular disease, confusion, delirium, depression, and dementia. Practice interventions for associated concerns such as reduced mobility, malnutrition, incontinence, pain, sensory impairment, challenging behaviours, and functional and organic disorders associated with alterations in mental health will also be addressed.

**Required Reading**


**Recommended Reading**


**Subject Hours**

The equivalent of three hours per week over one semester organised according to the teaching mode used.

**Assessment**

Assignment of 2500 words (50%); case study of 2000 words & class presentation (50%).

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**HNA5003 GERONTIC NURSING STUDIES 3**

**Campus** St Albans, Off Campus

**Prerequisite(s)** HNA5001 Gerontic Nursing Studies 1; HNA5002 Gerontic Nursing Studies 2; or equivalent.

**Content** This subject will introduce students to dominant issues in caring for older adults. Ethico-legal, socio-cultural, and political influences on the experience of ageing and the provision of aged care in a variety of contexts will be considered. Topics include: the operation of the aged care system; multidisciplinary approaches to care; the interface between community, sub-acute, acute, and residential aged care sectors; resource distribution; ethnicity and ageing; health promotion; consent; decision making; carer issues; elder abuse.

**Required Reading**


**Recommended Reading**


**Subject Hours**

The equivalent of three hours per week over one semester organised according to the teaching mode used.

**Assessment**

Assignment of 3000 words (60%); seminar paper of 2000 words (40%).

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**HNE5001 EMERGENCY NURSING STUDIES 1**

**Campus** St Albans, Off Campus

**Prerequisite(s)** Nil

**Content** The content includes: prioritises and principles of emergency nursing; triage; advanced health assessment; disaster response; emergency systems; life threatening situations; triage; health assessment; emergency nursing; emergency management; ethical and legal aspects of emergency nursing.
planning; pathophysiology and clinical assessment of traumatic and non-traumatic disorders of the neurological, respiratory, cardiovascular, renal, endocrine, haematological, gastrointestinal, musculoskeletal and integumentary systems; penetrating injuries; multiple trauma; burns; shock and infection; pain relief; environmental emergencies; obstetric emergencies; poisoning; communication and culture; drug overdose/substance dependence; sexually transmitted diseases; legal issues; sexual assault; crisis intervention, violence and aged abuse; psychiatric emergencies.


**Subject Hours** Thirty-nine hours for one semester.

**Assessment** Clinical project: 70% (2500-3000 words); Examination 30%; Clinical Journal Satisfactory/Unsatisfactory. Students must pass each component of the assessment, including the clinical journal, in order to pass this subject.

**HNES002 EMERGENCY NURSING STUDIES 2**

**Campus** St Albans, Off Campus

**Prerequisite(s)** Nil

**Content** The content includes: paediatric conditions and emergencies; critical examination and analysis of emergency nursing through fieldwork and current case studies; radiographic studies; principles of teaching and learning; management in emergency nursing and planned change in the health care system and its effects on emergency nursing care; ethics in emergency nursing care; multidisciplinary team approach.


**Subject Hours** Thirty-nine hours for one semester.

**Assessment** Clinical project: 70% (2500-3000 words); Examination: Theory 30%; Clinical Journal satisfactory/unsatisfactory (1000–1500 words). Students must pass each component of the assessment, including the clinical journal, in order to pass this subject.
HNE5002 EMERGENCY NURSING STUDIES 3

Campus St Albans, Off Campus

Prerequisite(s) HNE5001 Emergency Nursing Studies 1; HNE5002 Emergency Nursing Studies 2; or equivalent.

Content As there is a variety of role expectations of advanced emergency practitioners, it is imperative that each student determines the clinical learning required to achieve expertise in clinical emergency nursing. As each student’s learning experience at the time of entry to this subject is seen as unique and dynamic, this unit recognises the need for self-determination of learning modalities. Therefore the content includes: the diversity of the clinical environment in specialised emergency nursing practice; role of the advanced emergency nursing practitioner: leader, manager, educator, researcher, and collaborative consultant in the health care team. Further, as per contract developed by the student in collaboration with a lecturer, students are expected to spend their clinical learning experience in a related area but outside their current clinical practice, to further expand their clinical learning experience to achieve expertise and skills as an advanced practitioner in emergency nursing.


Subject Hours Seven hours comprising of seminars and thirty-two hours clinical learning experience.

Assessment Contract with supervisor: Hurdle requirement ungraded: students are required to submit a written contract of the clinical learning experience they wish to undertake before they set out to achieve their contractual clinical learning. Clinical Project: 100% (3000–3500 words); Clinical Journal satisfactory/unsatisfactory (1000–1500 words).

HNG5001 ISSUES AND POLICIES IN PROFESSIONAL PRACTICE

Campus St Albans, Off Campus

Prerequisite(s) Nil

Content The content of the subject includes the dynamic health care system; regulation and policy development on nursing practice; the nature of the health care system, including responsibility for the development of neophytes, collegiality and body of nursing knowledge; and a range of environmental influences that impact on the health of communities.


Subject Hours Three hours per week for one semester comprising one 2-hour lecture and one hour tutorial/workshop/group discussion.

Assessment Presentation 40%; written assignment 60% (3000 words)

HNG5003 AGING: HEALTH AND ILLNESS

Campus St Albans

Prerequisite(s) HNA 5001 and HNA 5002

Content As there is a variety of role expectations of advanced gerontic nurse practitioners, it is imperative that each student determines the clinical learning required to achieve expertise in clinical gerontic nursing. As each student’s learning experience at the time of entry to this subject is seen as unique and dynamic, this unit recognises the need for self-determination of learning modalities. The content includes students’ exploration of the diversity of the clinical environment in specialised gerontic nursing practice; role of the advanced gerontic nurse practitioner: leader, manager, educator, researcher, and collaborative consultant in the health care team. Students are expected to spend their clinical practicum in a related area but outside their current clinical practice, to further expand their clinical learning experience. Students select the related clinical practicum. Then students prepare a written contract of the clinical practicum they wish to undertake, before they set out to achieve their contract clinical practicum. The written contract should also include a projected clinical project which forms the clinical outcome. The contract is written in collaboration with the appropriate lecturer.


HNG6120 CLINICAL PROJECT

Campus St Albans
Prerequisite(s) Completion of one Group A subject, one Group B subject and an approved elective, or equivalent.

Content This clinical project is intended to allow the student to pursue his/her area of study in the clinical setting. The student will be required to define the focus of the study (such as physiological healing, pain management, continence management or managing change in clinical practice), identify relevant aims and objectives, arrange study placement and conduct the study. The project will include evaluation of the nursing care and reflection on this, as part of the ongoing process of evaluation of nursing practice in care of the older person. It is expected that a current literature review and outcomes of the study, together with the evaluation of the study will be included.

Required Reading To be advised by lecturer.

Subject Hours The project will be undertaken in consultation with the Course Co-ordinator.

Assessment The project will include a written paper of not more than 7500 words and be a piece of scholarly work.

HNM5001 CANCER NURSING STUDIES 1

Campus St Albans, Off Campus
Prerequisite(s) Nil

Content This subject will introduce the students to the major cancers, their aetiology, diagnosis and treatment. The major therapeutic modalities as well as alternative therapies will be dealt with such that the student is able to build a knowledge base for future education of self and the public.


Subject Hours The equivalent of three hours per week for one semester organised according to the teaching mode used.

Assessment Class presentation 30%; Case study 70% (2500 – 3000 words).

HNM5002 CANCER NURSING STUDIES 2

Campus St Albans, Off Campus
Prerequisite(s) Nil

Content The aim of this subject is to introduce the student to the major and common symptoms associated with cancer and its treatment. Methods of assessment and invention will be reviewed with the aim of developing more effective nursing practice. Such topics as oncology emergencies, immunosuppression, fatigue, nausea and vomiting and pain included.


Subject Hours The equivalent of three hours per week for one semester organised according to the teaching mode used.

Assessment Class presentation 30%; Case study 70% (2500 – 3000 words).

HNM5003 CANCER NURSING STUDIES 3

Campus St Albans, Off Campus
Prerequisite(s) HNM5001 Cancer Nursing Studies 1; HNM5002 Cancer Nursing Studies 2; or equivalent.

Content The psychosocial impact of cancer and its treatment on the patient and the family will be the focus of this subject, addressing such topics as quality of life, death and dying, communication and crisis intervention, body image, sexuality and mood changes. The role of counselling in cancer nursing practice will be introduced.


**Subject Hours**
The equivalent of three hours per week for one semester organised according to the teaching mode used.

**Assessment**
Class presentation 30%; Case study 70% (3000 words)

### HNM5004 NURSING MANAGEMENT 1

**Prerequisite** Nil
**Campus** St Albans
**Content** The subject provides senior nurses with educational opportunities to explore the role of a nurse manager and to develop their knowledge base and clinical expertise in the field of nursing management at a ward or unit level.

**Required Reading**

**Recommended Reading**

**Subject Hours** The equivalent of three hours per week for one semester organized according to the teaching mode used.

**Assessment**
- Examination: 30%, Essay/Assignment: 70% (2000-2500 words), seminar presentation 10%
Content This subject provides students with the opportunity to explore, refine and expand expertise in clinical judgement, to critically examine the processes or strategies in use. It also aims to enable students to apply theoretical knowledge to the management of a word/unit.


Subject Hours The equivalent of three hours per week for one semester organised according to the teaching mode used.

Assessment Written assignment 65% (2700-2900 words) Class presentation 35% Simulated interview and assessment activity (Ungraded: Pass/Fail)

HNMA5102 COGNITIVE BEHAVIOUR THERAPY IN SEVERE MENTAL ILLNESS 1

Campus St Albans/Off-Shore

Prerequisite(s) Nil

Content Theoretical background of cognitive behaviour therapy; Principles of cognitive behaviour therapy in mental health; Critical analysis of the interprofessional use of cognitive behaviour therapy in severe anxiety and depression in mental health settings; Interprofessional application of cognitive behaviour therapy in people with severe anxiety and depression in mental health settings; Culturally sensitive cognitive behavioural therapy in severe anxiety and depression; Consumer self-determination in cognitive behavioural therapy; Recovery focused cognitive behaviour therapy.


**Subject Hours** The equivalent of three hours per week for one semester organised according to the teaching mode used. 10 hours observation of the practise of cognitive behaviour therapy in a clinical setting.

**Assessment** Critical analysis paper 65% (2700-2900 words). Class presentation 35% Objective Simulated Clinical assessment [Ungraded: Pass/Fail]

**HNM5103 EVIDENCE BASED PRACTICE**

**Campus** St Albans/Off-Shore  
**Prerequisite(s)** Nil  
**Content** Accessing and using evidence based data bases; Appraising a systematic review of the literature; Utilise basic statistics for appraisal of systematic reviews, including statistical significance, chance, probability, confidence intervals, pitfalls in analysis; Appraising the professional application of a meta analysis to an aspect of professional practice; Recovery from mental illness that enhances consumer self-determination and social connectedness; Culturally sensitive evidence based professional practice.


**Subject Hours** The equivalent of three hours per week for one semester organised according to the teaching mode used.

**Assessment** Essay about evidence based practice 35% (1800-2000 words). Appraisal of a systematic review of the literature on a nominated topic 65% (2700-2900 words)

**HNM5104 FIELDWORK: MENTAL HEALTH PRACTICE**

**Campus** St Albans/Off-Shore  
**Prerequisite(s)** Nil  
**Content** Student will undertake 120 hours of clinical practice and engage in reflective practice with a mentor. One 3-hour introduction to the subject.


**Subject Hours** Ideally, fieldwork should take place in a setting in which the student is not employed. In exceptional circumstances, the student may negotiate with the subject co-ordinator to undertake the fieldwork in his or her workplace. This is conditional upon the student providing satisfactory evidence that the subject objectives can be achieved in his or her workplace.

**Assessment** Case management study, comprising (a) interview and assessment 40% (1900-2100 words); (b) Case management report 60% (2800-3000 words). Achievement of clinical competencies [Ungraded: Pass/Fail]

**HNM6011 COUNSELLING IN THE HEALTH CARE CONTEXT**

**Campus** St Albans  
**Prerequisite(s)** Nil  
**Content** This subject will provide education and training in effective communication skills for interaction with health professionals, colleagues and client populations. Health communication and how individuals deal with health related issues will be explored. A small range of major counselling theories will be examined and training in brief counselling strategies will be provided. An understanding of how social, cultural and developmental contexts impact on the counselling relationship will be discussed. Emphasis will be placed on group work theory and practice.
Required Reading

Recommended Reading

Subject Hours Three hours per week for one semester comprising two hours a week structured learning session and one hour workshop/group work

Assessment
Class presentation of a case study and written report (1000 words) 40% Written Assignment on a selected theoretical approach to counselling 60% (2000 words)

HNM6040 RESEARCH PLANNING

Campus St Albans
Prerequisite(s) Nil
Corequisite(s) HHA6115 Minor Thesis (full-time) or HHA6116 Minor Thesis (part-time); or equivalent.

Content
The aim of this subject is to provide students with the opportunity to plan for successful conduct of research. Whilst the major emphasis of this subject will focus on planning, students will also explore alternative theoretical and conceptual frameworks relevant to an area of inquiry, and methods which might best address the research problem proposed for investigation. Students will also be expected to develop a persuasive argument supporting both the feasibility and novelty of the topic of inquiry. The topics covered in this subject will result from negotiation between the student and supervising lecturer and will be influenced by the needs of individual students. Topics which would be expected to be considered include the role of literature reviews, how to clarify a research problem, method(s) of inquiry relevant to the problem and a writing research proposal.

Recommended Reading

Subject Hours
Whilst students will not necessarily attend formal classes, they will meet with a supervisor on a regular basis. The nature of the work required could be estimated as equivalent to three contact hours per week with an expectation that additional and related work will proceed on an ongoing basis.

Assessment
Assignment, 2000 words; research proposal. A satisfactory standard must be achieved in both pieces of assessment to achieve an ungraded pass in the subject.

HNH6109 WORKING WITH GROUPS IN HEALTHCARE CONTEXTS

Campus St Albans, Off-Shore
Prerequisite(s) Nil

Content
Historical and theoretical underpinning of group work; Benefits of group work with people who have mental illness; Types of group work and application in mental health settings; Components of small groups; Group development; Managing conflict in groups; Establishing, running and evaluating psychotherapeutic groups in mental health settings; Clinical de-briefing of group work with their mentor; Group roles; Culturally sensitive group work; Consumer self-determination and social connectedness in group work; Recovery focused group work.

Required Reading


Recommended Reading

Subject Hours
The equivalent of three hours per week for one semester organised according to the teaching mode used.

Assessment
Written proposal to establish a group 35% (1800-2000 words) Written evaluation of a group process 65% (2700-2900 words)

HNH6110 NURSING AND PHILOSOPHY OF SCIENCE

Campus St Albans
Prerequisite(s) Nil

Content
This subject provides an overview on ways in which the discipline of nursing has been influenced by various philosophies of science. In addition, it will examine changing trends in scientific methods of inquiry and their influence on nursing’s epistemology.

Required Reading
To be advised by lecturer.

Recommended Reading
Subject Hours Three hours per week for one semester comprising one two-hour lecture and one one-hour tutorial.

Assessment Written assignment (4000 words), 70%; seminar presentation, 30%

HNM6112 COGNITIVE BEHAVIOUR THERAPY IN SEVERE MENTAL ILLNESS 2

Campus St Albans, Off-Shore
Prerequisite(s) HNMS102 Cognitive behaviour therapy in severe mental illness 1
Content Summary of principles of cognitive behaviour therapy; Principles of cognitive behaviour therapy in psychotic illness, eating disorders, and obsessive compulsive disorder; Critical analysis of the interprofessional use of cognitive behaviour therapy in psychotic illness, eating disorders, and obsessive compulsive disorder in mental health settings; Interprofessional application of cognitive behaviour therapy in people with psychotic illness, eating disorders, and obsessive compulsive disorder in mental health settings; Culturally appropriate cognitive behavioural therapy in people with psychotic illness, eating disorders, and obsessive compulsive disorder; Consumer self-determination and social connectedness in cognitive behaviour therapy; Recovery focused cognitive behaviour therapy.


Subject Hours The equivalent of three hours per week for one semester organised according to the teaching mode used.

Assessment Written proposal about establishing cognitive behaviour therapy program 45% (2200-2400 words) Critical analysis paper 55% (2500-2700 words) Objective Simulated Clinical assessment (Ungraded: Pass/Fail)

HNM6118 EVIDENCE BASED PRACTICE IN SPECIALISED NURSING

Campus St Albans
Prerequisite(s) Nil
Content This subject considers the rationale for evidence based nursing practice, the skills that are needed to conduct a meta-analysis, and the approaches that can be used to appraise a systematic review. The focus of the meta analysis will be on recovery from acute illness.


Subject Hours 39 hours

Assessment Part 1: 35%; Part 2: 65%.

HNM6119 LEADERSHIP AND MANAGEMENT IN SPECIALISED NURSING

Campus St Albans/Offshore
Prerequisite(s) Nil
Content The content of the subject includes component of specialist settings: change theory and process in acute health care organization; organisation structures and their effects on communication; role of nurse manager in specialised nursing practice; human resource challenge; principles of teamwork; management and leadership principles; budgeting and costing; models of leadership and management in specialisedpractice.


Subject Hours The equivalent of three hours per week for one semester organised according to the teaching mode used. 
Assessment Presentation (equivalent to 2000 words) – 40%
Written Assignment (2500 to 3000 words) 60%.

HNN6122 CLINICAL PROJECT
Campus Footscray Park
Prerequisite(s) Nil
Content The clinical project is the culmination of the depth and breadth of the course on Substance Abuse and is intended to allow the student to pursue his or her own area of study in clinical or other settings. It is intended that the work of the student will be original and carried out under the guidance of a supervisor. The student will be required to choose the focus of their study, such as program evaluation, efficacy of a particular treatment modality, psychosocial or other factors relating to substance abuse. The student will present relevant aims and objectives and conduct the study under the guidance of the supervisor.
Required Reading No required reading, as each student will explore a topic of their choosing.
Subject Hours This subject will be taken over two semesters and the hours will be undertaken in consultation with the supervisor.
Assessment A current literature review equivalent to 2500 words (30%) will be included and the project will be of 7500 words in length (70%).

HNN6209 CLINICAL SPECIALISED PROJECT
Campus St Albans
Prerequisite(s) Master of Nursing (Specialisation) at Graduate Diploma level.
Content The clinical project is intended to be a scholarly independent and creative piece of work in an area of student personal/professional interest in the field of his/her specialisation. It can be in any of the broad spectrums of nursing and nursing practice, for example: specialised clinical nursing practice, professional nursing practice or nursing/patient education. Student identifies an issue or poses a question, undertakes an exhaustive/numinous relevant literature review, reflects on the theoretical underpinnings and plans for an implementation of change to achieve excellence in practice. The project will be undertaken in consultation with the relevant nursing specialisation course co-ordinator or another appropriate designated facilitator.
Required Reading As defined by the choice of the topic for the clinical project
Subject Hours The student will be expected to devote the equivalent of a 6-hour week to the subject. The format is variable to meet students’ needs.
Assessment Two Parts: 1. A written proposal of the clinical project: Word limit = 1000 Mark 10% 2. Clinical Project comprising an Investigation of an approved topic, followed by the submission of a suitably formatted thesis in which the topic is introduced and formulated; the investigation described in detail; results and conclusions from the study elaborated; and an extended discussion presented. Students may be required to undertake some lecture courses, as specified at the time of commencement.

HNN6800 RESEARCH THESIS (FULL-TIME)
Campus St Albans
Prerequisite(s) Eligibility for entry to a Masters by Research or Doctor of Philosophy program.
Content This subject, the aim of which is to enable students to proficiently research an area of study utilising knowledge and skills gained in previous studies, consists of a project carried out by students on an individual basis. The project is expected to be an investigation of an approved topic, followed by the submission of a suitably formatted thesis in which the topic is introduced and formulated; the investigation described in detail; results and conclusions from the study elaborated; and an extended discussion presented. Students may be required to undertake some lecture courses, as specified at the time of commencement.
Required Reading To be advised by supervisor.
Subject Hours Independent research in addition to regular meetings with the students supervisors.
Assessment The thesis will normally be assessed by at least two expert examiners from an appropriate area of expertise.

HNN5001 NEUROSCIENCE NURSING STUDIES 1
Campus St Albans, Off Campus
Prerequisite(s) Nil
Content The topics for this unit of study include: Pathophysiological and diseases processes relating to neuromedical and neurosurgical conditions. Perspective in Neuroscience Nursing such as major changes in health care delivery and implications for Neuroscience patients and nursing practice, the continuum of care and models of neuroscience nursing practice. Assessment and evaluation of neuroscience patients such as diagnostic procedures and laboratory tests for neuroscience patients including anatomical and physiological imaging techniques of the brain, cerebrospinal fluid and spinal procedures, cerebrovascular studies, testing of special senses and nervous system electrical activity and conduction.

**Subject** Three hours per week for one semester comprising two hour lectures and one hour tutorial.

**Assessment** Neurological Case Study Assignment 30% (2000–2500 words); Seminar Presentation 25%; Examination 30%; Clinical Journal 15% (1000 – 1500 words). Students must pass each component of the assessment, including the clinical journal in order to pass this subject.

### HNN5002 NEUROSCIENCE NURSING STUDIES 2

**Campus** St Albans, Off Campus

**Prerequisite(s)** Nil

**Content** This subject provides the participants with advanced knowledge in advanced neuropathophysiology and understanding the complexity of patients with tumors of the neurological system including principles and treatment utilizing both surgical and medical approaches. Cerebrovascular diseases such as transient ischaemic attacks and ischaemic stroke and various classifications of cerebral aneurysms are discussed. The subject also include nursing management of patients with headaches, seizures in terms of classification and identification of epilepsy, infections of the nervous system including meningitis, encephalitis and other viral organisms. Neurological conditions relating degenerative processes and cranial nerve disorders are discussed. Psychological, organic and physical considerations of Alzheimer’s disease, Multiple Sclerosis, Myasthenia Gravis, Parkinson’s Disease, Guillain Barre Syndrome are also included in this subject.


**Assessment** Case study assignment 40% (2000–2500 words); Examination 40%; Clinical Journal 20% (1000–1500 words). Students must pass each component of the assessment, including the clinical journal in order to pass this subject.

### HNN5003 NEUROSCIENCE NURSING STUDIES 3

**Campus** St Albans, Off Campus

**Prerequisite(s)** HNN5001 Neuroscience Nursing; HNN5002 Neuroscience Nursing 2; or equivalent

**Content** This subject aims to critically analyze in depth Neuroscience Nursing by examining the related significant development of neuroscience nursing practice within the profession, concurrent with the addition of new treatment options through the review of recent research, examination in the access, efficacy, cost, ethical implications and management models for neuroscience nursing practice. The subject includes the framework, concepts and philosophy of rehabilitation and education of Neuroscience patient. Nursing management and treatment of AIDS and Cranial Nerve Diseases such as trigeminal neuralgia, facial palsy, miniere’s disease, glossopharyngeal neuralgia and amyotrophic lateral sclerosis are included in this subject.


**Assessment** Case study assignment 40% (2000–2500 words); Examination 40%; Clinical Journal 20% (1000–1500 words). Students must pass each component of the assessment, including the clinical journal in order to pass this subject.

### HNN5001 ORTHOPAEDIC NURSING STUDIES 1

**Campus** St Albans, Off Campus

**Prerequisite(s)** Nil

**Content** The content includes: Principles and practice of orthopaedics and orthopaedic nursing; advanced health assessment; musculo-skeletal assessment; traction application and management; POP and synthetic casting application and management; pathophysiology and clinical assessment of musculo-skeletal disorders which include traumatic disorders and non-traumatic disorders such as: fractures, inflammatory diseases, degenerative diseases, and complications; orthopaedic investigations; principles and practice of immobilisation; principles of management and care of individuals with post traumatic orthopaedic disorders; principles of management and care of individuals with non-traumatic orthopaedic disorders; concept, principles and aims of rehabilitation, and the role of the nurse in rehabilitation.
HN05002 ORTHOPAEDIC NURSING STUDIES 2

Campus St Albans, Off Campus

Prerequisite(s) Nil

Content The content includes: ambulatory techniques and devices and the role of physiotherapy; principles and functions of Orthoses, and appropriate nursing assessment and intervention associated with specific orthoses; management in orthopaedic nursing and planned change in the health care system and its effects on orthopaedic nursing care; critical examination and analysis of orthopaedic nursing through fieldwork and current case studies; radiographic studies; multidisciplinary team approach and communication; principles and methods of pain management in orthopaedic nursing; leadership in orthopaedic nursing; spinal cord injury; paediatric disorders; oncological processes; and metabolic bone diseases.


HN05003 ORTHOPAEDIC NURSING STUDIES 3

Campus St Albans, Off Campus

Prerequisite(s) HN05001 Orthopaedic Nursing Studies 1; HN05002 Orthopaedic Nursing Studies 2; or equivalent.

Content As there are a variety of role expectations of advanced orthopaedic nurse practitioners, it is imperative that each student determines the clinical learning required to achieve expertise in clinical orthopaedic nursing. As each student's learning experience at the time of entry to this subject is seen as unique and dynamic, this unit recognises the need for self-determination of learning modalities. Therefore the content includes: the diversity of the clinical environment in specialised orthopaedic nursing practice; role of the advanced orthopaedic nurse practitioner: leader, manager, educator, researcher, and collaborative consultant in the health care team. Further, as per contract developed by the student in collaboration with a lecturer, students are expected to spend their clinical learning experience in a related area but outside their current clinical practice, to further expand their clinical learning experience to achieve expertise and skills as an advanced practitioner in orthopaedic nursing.


Subject Hours Seven hours comprising seminar and thirty-two hours of clinical learning experience.

Assessment Contract with supervisor: Hurdle requirement ungraded. Students are required to submit a written contract of the clinical learning experience they wish to undertake before they set out to achieve their contractual clinical learning. Clinical Project: 80% (3000-3500 words); Clinical Journal 20% (1000-1500 words).
**HNP5001 Paediatric Nursing Studies 1**

**Campus** St Albans, Off Campus  
**Prerequisite(s)** Nil  
**Content** Topics include: perspective of paediatric nursing; human growth and development; advanced health assessment of the child and family; principles and practice of paediatric health assessment skills; pathophysiology and clinical assessment of the child/adolescent with endocrine, neurological, musculo-skeletal, respiratory, cardiovascular, gastrointestinal, renal, oncological and plastic disorders; paediatric surgery; principles of paediatric nursing research; impact of hospitalisation on the child and family; principles of managing children and families with special needs.  

**Required Reading**  

**Recommended Reading**  

**Assessment**  
Examination 30%; Clinical Journal 10% (1000 words). Students must pass each component of the assessment, including the clinical journal, in order to pass this subject.

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**HNP5003 Paediatric Nursing Studies 3**

**Campus** St Albans, Off Campus  
**Prerequisite(s)** HNP5001 Paediatric Nursing Studies 1; HNP5002 Paediatric Nursing Studies 2; or equivalent.  
**Content** As there are a variety of role expectations of advanced paediatric nurse practitioners, it is imperative that each student determines the clinical learning required to achieve expertise in clinical paediatric nursing. As each student’s learning experience at the time of entry to this subject is seen as unique and dynamic, this unit recognises the need for self-determination of learning modalities. Therefore the content includes: the diversity of the clinical environment in specialised paediatric nursing practice; role of the advanced paediatric nurse practitioner: leader, manager, educator, researcher, and collaborative consultant in the health care team. Further, as per contact developed by the student in collaboration with a lecturer, students are expected to spend their clinical learning experience in a related area but outside their current clinical practice, to further expand their clinical learning experience to achieve expertise and skills as an advanced practitioner in paediatric nursing.  

**Required Reading**  
HNSS010 THEORIES OF ADDICTION

Campus Footscray Park
Prerequisite(s) Nil
Content This subject considers a range of traditional and non-traditional theories of substance use, dependence and addiction. Definitional, physiological, pharmacological, psychological and social perspectives are examined. A variety of interventions and treatments will be considered in the context of the range of theories of substance use, dependence and addiction.
Required Reading To be advised by the lecturer.


Subject Hours Three hours per week for one semester.
Assessment One written assignment of 2,500 words (60%), and one presentation (40%)
Required Reading To be advised by the lecturer.


Subject Hours Three hours per week for one semester.

Assessment One written assignment of 2,500 words, 60%; presentation of a health education/patient education session, 40%.

HN55040 THERAPEUTIC INTERVENTIONS

Campus Footscray Park

Prerequisite(s) Nil

Content This subject considers the skills and knowledge related to therapeutic communication with clients who have drug and alcohol problems. Counselling models related to dealing clients with substance abuse problems will be addressed, with specific focus on Motivational Interviewing. This subject has an emphasis on practical competencies for the student.

Required Reading To be advised by lecturer


Subject Hours Three hours per week for one semester.

Assessment 2500 word assignment, 60%; presentation based on core skills, 40%.

HN55001 HEALTH AND DEVELOPMENT OF THE YOUNG FAMILY

Campus St Albans

Prerequisite(s) Nil

Content The subject is developed within a wholistic model of health and emphasises the connections between all aspects of human experience. Semester One: Principles and application of primary health. The role of the Maternal and Child Health Nurse in a culturally diverse society; development and maintenance of the therapeutic relationship; working in a multidisciplinary team; utilising the principles of community development. The well woman (pregnancy, post partum and early parenting years). Health maintenance, role transition. Determinants and processes of normal child physiological growth and development 0-6 years. Assessment skills and processes with children 0-6 years; screening tools; critical observation; documentation; referrals. Physiological growth and developmental deviations, delays and dysfunctions. Promotion and maintenance of health and well being of children and their families. Nutritional requirements of the child 0-6 years; breast feeding; formula feeding; balanced and appropriate diet. Immunisation processes. Semester Two: Theory and application of key social and behavioural models, including Erikson, Piaget, Freud, Bandura, Brazelton, Chess and Birch, Ainsworth, Caldwell etc. Separation and attachment theory. Determinants and processes of normal child psychosocial, and cognitive growth and development 0-6 years. Developmental deviations, delays and dysfunctions. Family dynamics; assessment and support. Parenting skills. Sexuality. Interventions for families and groups with special needs, including NESC, single parents; children with developmental delays and/or disability; post partum depression; family dysfunction.


Subject Hours Semester One: The equivalent of 39 hours, comprising lectures, tutorials, workshops and seminars plus 100 hours of professional practice fieldwork. Semester Two: The equivalent of 39 hours, comprising lectures, tutorials, workshops and seminars plus 100 hours of professional practice fieldwork.

Assessment Semester One: 1 x two hour examination (60%); assignment of 3000 words (40%); professional practice. Fieldwork report hurdle requirement. Semester Two: 1 x two hour examination (60%); assignment of 3000 words (40%); professional practice. Fieldwork report hurdle requirement.

HN55002 HEALTH AND DEVELOPMENT IN CHILDHOOD AND ADOLESCENCE

Campus St Albans

Prerequisite(s) Nil

Content Semester One: The subject is developed within a holistic model of health and emphasises the connections between all aspects of human experience. Principles and application of primary health care and community development within the school and community. The role of the Public Health Nurse in a culturally diverse society. Development and maintenance of the therapeutic relationship,
including issues related to the multidisciplinary team. The well young person: determinants and processes of normal psychosocial and physiological growth and development from six to eighteen years. Assessment skills and processes with young people, including screening tools, critical observation, documentation and referrals. Immunisation issues within the school and wider community. Semester Two: Role transition to adolescence and adulthood: relationships; individuation. Sexualities. Promotion and maintenance of health and well being of young people and their families in a range of community settings, including rural locations. Mental health issues. Developmental deviations, delays and dysfunctions. Social issues of concern, including child abuse, substance abuse, early school leavers, youth unemployment. Building healthy school communities; ethical, legal and political issues within the school community. Leadership, roles and relationships within a multidisciplinary team.

Required Reading


Recommended Reading


Subject Hours

Semester One: The equivalent of 39 hours, comprising lectures, tutorials, workshops and seminars plus 100 hours or the equivalent of one day per week for 13 weeks mandatory professional practice fieldwork. Semester Two: The equivalent of 39 hours, comprising lectures, tutorials, workshops and seminars plus 100 hours or the equivalent of one day per week for 13 weeks mandatory professional practice fieldwork.

Assessment

Semester One: 1 x two hour examination (60%); assessment of 3000 words (40%); professional practice. Fieldwork report hurdle requirement. Semester Two: 1 x two hour examination (60%); assignment of 3000 words (40%); professional practice. Fieldwork report hurdle requirement.
HNU5006 PUBLIC HEALTH: POLICY AND PRACTICE

**Campus** St Albans

**Prerequisite(s)** Nil

**Content** The content of the subject includes an exploration of the meaning of health to lay and professional people and its relevance to public health; the history of public health policy and practice to the present day ‘new public health’ movement; the development of public health in Australia and related political influences; an exploration of the ethical issues relevant to public health; globalisation in public health.


**Assessment**

1. **Development of a Health Education Package relevant to own area of nursing practice (40%); class presentation (15%);**

2. **written assignment: (45%).**
NP8210 Research Thesis (Science Based) (Part-Time)

Campus City Flinders, Footscray Park
Prerequisite(s) Eligibility for entry to a Masters by Research or Doctor of Philosophy program.
Content This subject, the aim of which is to enable students to conduct independent research in an area of study utilising knowledge and skills gained in previous studies, consists of a project carried out by students on an individual basis. The project is expected to be an investigation of an approved topic, followed by the submission of a suitably formatted thesis or performance in which the topic is introduced and formulated; the investigation described in detail; results and conclusions from the study elaborated; and an extended discussion presented. Students may be required to undertake some lecture courses, as specified at the time of commencement.
Required Reading To be advised by supervisor.
Subject Hours Independent research in addition to regular meetings with the student supervisors.
Assessment The thesis will normally be assessed by at least two expert examiners from an appropriate area of expertise.

JRM6001 HDL and High Level Synthesis

Campus Chipskills Partner Universities
Prerequisite(s) Completed Digital Systems at undergraduate level or equivalent.
Class Contact Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises and project.
Assessment Assignment and laboratory exercises, 20%; project, 50%; and final examination, 30%.

JRM6005 Embedded System Design

Campus Chipskills Partner Universities
Prerequisite(s) Completed Microprocessor Systems at undergraduate level or equivalent.
Content Overview of embedded systems. Embedded system design cycle and system modelling. Embedded system hardware and software. Real-time embedded system. Embedded system specification and verification. Hardware/software co-design, partitioning and trade-offs. Embedded development tools. Analysis and design methods using graphical notations eg. UML, implementation considerations, testing strategies and construction of test cases, software engineering environments and CASE tools. Embedded system design and verification.
Class Contact Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises and project.
Assessment Assignment and laboratory exercises, 30%; project, 40%; and final examination, 30%.

JRM6006 Emerging Topics in IC Design

Campus Chipskills Partner Universities
Prerequisite(s) Nil.
Content New technologies such as: Silicon carbide high-power devices, Quantum based devices, quantum wells and quantum dots Nanometer MOSFETs, Wide bandgap materials and devices, Plasma-wave electronics, Ferroelectric devices. Overview of new process technologies. Deep sub-micron technology and noise. Ultra-high-speed devices, including microwave and optical devices. New Systems-Level Architectures, such as: Nanowire arrays, Neuromorphic architectures, Reconfigurable architectures. Wafer-scale systems, Memory systems. New EDA tools and future technology projections: EMC: regulations, measurement and testing. Design issues related to EMC.
Class Contact Four hours per week for one semester comprising two hours per week lectures and two hours per week of workshops and seminars.
Assessment Assignments, 30%; seminars, 40%; and research project, 30%.

JRM6010 Introduction to Microsystems Technology

Campus Chipskills Partner Universities
Prerequisite(s) Nil.
Class Contact Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises.
Assessment Assignments, 20%; laboratory exercises, 30%; project, 30 and final examination, 20%.

JRM6011 Introduction to Semiconductor Device Fabrication

Campus Chipskills Partner Universities
Prerequisite(s) Nil.
Content Fundamental principles of fabrication processes, physical and chemical models for crystal growth, oxidation, ion
implantation, etching, deposition, lithography and metallisation. Emphasis is on practical aspects of silicon device fabrication, including wafer cleaning, photolithography, etching, oxidation, diffusion, ion implantation, chemical vapour deposition, physical sputtering and wafer testing. Imperfections in semiconductors, crystal growth, solid solubility, alloying and diffusion, ion implantation, oxide masking, and epitaxy. Practical and fundamental limits to the evolution of the technology of MOS and bipolar devices. How are integrated circuits fabricated and what future changes are likely? The implications for device performance caused by material properties and fabrication techniques. Fabrication techniques for bipolar and MOS-devices, and the electrical performance of devices based on these techniques. Comparison of fabrication technologies for silicon and gallium arsenide devices. Processes and fabrication equipment to be studied will include oxidation/diffusion, CVD reactors, photolithography, plasma etching, vacuum evaporator, ion implantation, etc. Introduction to computer modelling of processing steps such as etching, lithography, diffusion, implantation [eg SUPREME].

**Recommended Reading**


**Required Reading**


**Class Contact**

Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises.

**Assessment**

Assignments, 20%; laboratory exercises, 30%; and final examination, 50%.

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**JRM6012 SEMICONDUCTOR DEVICE PHYSICS**

**Campus** Chipskills Partner Universities

**Prerequisite(s)** Nil


**Required Reading**


**Recommended Reading**


**Class Contact**

Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises.

**Assessment**

Assignments, 20%; laboratory exercises, 30%; and final examination, 50%.

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**JRM6013 PROJECT MANAGEMENT AND ENTREPRENEURSHIP**

**Campus** Chipskills Partner Universities

**Prerequisite(s)** Nil


**Required Reading**

Current available text book – students to be advised. Appropriate journal papers.

**Recommended Reading**

Yuzuritha, T., 1999, How to succeed as an Engineer: A Practical Guide to Enhance Your Career, IEEE.

**Assessment**

Assignments, 20%; seminar presentations, 10%; project, 30%; and final examination, 40%.

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**JRM6015 special electives**

**Campus** Chipskills Partner Universities

**Prerequisite(s)** As per chosen elective.

**Content** As per chosen elective.

**Required Reading** As per chosen elective.

**Recommended Reading** As per chosen elective.

**Class Contact** As per chosen elective.

**Assessment** As per chosen elective.
RBF6720 FOOD MICROBIOLOGY

Campus Werribee
Prerequisite(s) Eligibility for entry to the Master of Science in Food Science and Technology.


Class Contact Six hours per week comprising three hours of lectures and tutorials and three hours of practical work for one semester.

Assessment Assignments and tests 30%, Practical work 20%, final examination 50%.

RBF6722 GRAIN SCIENCE AND TECHNOLOGY

Campus Werribee
Prerequisite(s) Eligibility for entry to the Master of Science in Food Science and Technology.


Class Contact Six hours per week comprising three hours of lectures and tutorials and three hours of practical work for one semester.

Assessment Assignments and tests 30%, Practical work 20%, final examination 50%.

RBF6721 FRUIT AND VEGETABLE SCIENCE AND TECHNOLOGY

Campus Werribee
Prerequisite(s) Eligibility for entry to the Master of Science in Food Science and Technology.

Content This subject introduces students to the principles and technology of fruit and vegetable processing and to recent developments in the processing of these commodities. Topics covered include: The fruit and vegetable industry: plant physiology; the biochemistry of fruit ripening; diseases; maturity prediction and testing; post-harvest handling and storage, chilling and freezing, canning, microwave processing, cooking and dehydration; changes in quality. The juicing of fruit and vegetables, product deterioration, blanching treatments, product quality, quality assurance, and legal requirements.

Required Reading To be advised by lecturers.


Class Contact Six hours per week comprising lectures, tutorials, practical work and/or field trips for one semester.

Assessment Assignments and tests 30%, practical work 20%, final examination 50%.

RBF6723 MUSCLE FOOD SCIENCE AND TECHNOLOGY

Campus Werribee
Prerequisite(s) Eligibility for entry to the Master of Science in Food Science and Technology.

Content This subject aims to study the physical, chemical and biochemical parameters of muscle foods which have effect on the processing, technology and final quality of the product. The subject covers: The meat industry; Anatomical microstructure and histochemical characters of muscle; Muscle pigments; Post-mortem biochemistry of muscle; Conversion of muscle to food by processing – slaughtering, chilling, freezing, curing, emulsifying, smoking, fermenting, canning and others. The assessment of product quality. Special religious requirements and the processing of muscle foods to meet these values; By-product processing.


Class Contact Six hours per week comprising lectures, tutorials, practical work and/or field trips for one semester.

Assessment Assignments and tests 30%, practical work 20%, final examination 50%.

RBF6724 DAIRY SCIENCE AND TECHNOLOGY

Campus Werribee
Prerequisite(s) Eligibility for entry to the Master of Science in Food Science and Technology.

Content This subject provides a study of the science and technology associated with the processing of milk and milk products. The subject covers: Structure of the Dairy Industry; Effects of heat treatment on milk; Processing of milk to various dairy products; Advances in testing of milk and milk products; Quality management of milk and dairy products; Starter cultures and friendly bacteria; Advances in
dairy fermentation; UHT of milk and milk products; Membrane technology; Nutritional issues in dairy product development; Dairy ingredients.

**Required Reading** To be advised by lecturers.


**Class Contact** Six hours per week comprising lectures, tutorials, practical work and/or field trips for one semester.

**Assessment** Assignments and tests 30%, practical work 20%, final examination 50%.

**RBF6730 PRESERVATION AND PROCESSING TECHNOLOGY**

**Campus** Werribee

**Prerequisite(s)** Eligibility for entry to the Master of Science in Food Science and Technology.

**Content** This subject provides an introduction to the principles and technology of food processing and preservation by traditional and modern techniques and their effects on the safety, appearance and nutritional quality of foods and the implications of processing and preservation methodologies on the physical, chemical, microbiological and nutritional quality of foods. This subject covers: A brief history of the food processing industry. A basic introduction to unit operations. Preservation by moisture control: water activity, intermediate moisture foods, concentration, dehydration and freeze drying. Preservation by heat treatment: pasteurisation, sterilisation, canning. Preservation by chilling and freezing. Chemical preservation and fermentation. Preservation by irradiation. Modified atmospheres. Influence of processing on product safety, quality and nutritional value of foods. Principles of food packaging, packaging requirements.


**Class Contact** Six hours per week comprising lectures, tutorials, practical work and/or field trips for one semester.

**Assessment** Assignments and tests 30%, practical work 20%, final examination 50%.

**RBF6740 SPECIAL TOPICS IN FOOD TECHNOLOGY**

**Campus** Werribee

**Prerequisite(s)** Eligibility for entry to the Master of Science in Food Science and Technology.

**Content** This subject allows students to develop and study a selected aspect of food science and technology and requires the conduct of a project on the selected topic. This project is not laboratory based but is designed to allow students to research the literature on a topic of interest to themselves. The project will be carried out on an individual basis under the supervision of a Food Technology staff member of the School of Life Sciences and Technology and a member of industry where appropriate. The subject includes: Design and development of the study, collection and analysis of data and submission of a written report. Presentation of a seminar on the topic. Subject to approval, the project may be related to the students’ work situation and/or may involve plant based work.

**Required Reading** Students will be responsible for reviewing the current literature on their project topic.

**Class Contact** Three hours per week comprising tutorial work and self-directed learning activities for one semester.

**Assessment** Oral presentation 20%; Written report 80%.

**RBF6745 FOOD PRODUCT DEVELOPMENT**

**Campus** Werribee

**Prerequisite(s)** Eligibility for entry to the Master of Science in Food Science and Technology.

**Content** This subject provides an introduction to the systematic methods used in the development of new products, market research, product design and specification and evaluation of product development project. This subject covers: Development of aims, objectives and constraints; Collection and analysis of marketing and technical information required for product development; Product idea generation; Screening of new product ideas; Product concept development and testing; Marketing-strategy development, Product development process (project planning, formulation development, process development, shelf-life testing); Consumer testing: Market trial methods and estimation of market size; Product specifications (raw materials, process, finished product); Packaging and labelling, product evaluation, product costing and pricing; Production planning; Market development and product launch.


**Class Contact** Three hours per week comprising lectures/tutorials and practical work for one semester.

**Assessment** Assignments and tests 20%, practical work 30%, final examination 50%.

**RBF6750 FOOD SAFETY AND QUALITY ASSURANCE**

**Campus** Werribee

**Prerequisite(s)** Eligibility for entry to the Master of Science in Food Science and Technology.

**Content** This subject provides an introduction to the concepts and principles of food safety and quality assurance, food legislation, food standards, sensory and objective evaluation of foods and conduct of objective and sensory evaluation tests on foods. The subject covers: sensory attributes and sensory evaluation; sensory perception, use of sensory and objective evaluation in quality control and product development, experimental design and analysis, questionnaire design, taste panels, shelf-life assessment; food law: Australian and International food standards codes, food hygiene regulations, micro-biological standards and codes of practice, the development and underlying principles of food standards, Codex standards, export standards, food additives, types, functions, toxicological evaluation and regulations governing usage; toxic substances and contaminants; hygiene and sanitation in food processing and production, techniques for evaluation of food processing plants; quality assurance principles and systems: parameters of food quality and its evaluation and control, role of quality assurance, concepts of total quality control (TQC) and total quality management.
quality management (TQM), good manufacturing practice, sampling plans, specification writing, hazard analysis and critical control point (HACCP) concept, product recall procedures, Australian and international quality systems.

**Required Reading** To be advised by lecturers.


**Class Contact** Six hours per week comprising lectures/tutorials and practical work for one semester.

**Assessment** Assignments and tests 20%, practical work 20%, final examination 60%.

**RBF6910 MINOR PROJECT**

**Campus** Werribee

**Prerequisite(s)** Eligibility for entry to the Master of Science in Food Science and Technology.

**Content** This subject allows students to conduct a research project of their own design, analyse and interpret data and communicate research findings clearly and concisely in both oral and written form. This subject covers: Conduct of a project on an aspect of food science and technology; Design and development of the study, collection and analysis of data and submission of a written report; Presentation of a seminar on the research work. Subject to approval, the project may be related to the student’s work situation and/or may involve laboratory or plant based work.

**Required Reading** Students will be responsible for reviewing the current literature on their project topic.

**Class Contact** Six hours per week for one semester.

**Assessment** Assignments and tests 20%, practical work 20%, final examination 60%.

**RBF6920 MAJOR PROJECT 1**

**Campus** Werribee

**Prerequisite(s)** Eligibility for entry to the Master of Science in Food Science and Technology.

**Content** In this subject students will conduct a research project of their own design, analyse and interpret data and communicate research findings clearly and concisely in both oral and written form. The project will be carried out on an individual basis under the supervision of a Food Technology staff member of the School of Molecular Sciences and a member of industry where appropriate. The subject involves: Conduct of a thorough literature search on current issues in food science and technology; Design and development of the study; Presentation of a seminar on the research work. Subject to approval, the project may be related to the student’s work situation and/or may involve laboratory or plant based work.

**Required Reading** Students will be responsible for reviewing the current literature on their project topic.

**Class Contact** Twelve hours per week of laboratory/tutorial work for one semester or Six hours per week of laboratory/tutorial work for one semester.

**Assessment** Oral presentation 20%, Written reports 80%.

**RBF6925 MAJOR PROJECT 2**

**Campus** Werribee

**Prerequisite(s)** Eligibility for entry to the Master of Science (Food Science).

**Content** Conduct of a project on an aspect of food science and technology; Design and development of the study, collection and analysis of data and submission of a written report; Presentation of a seminar on the research work. Subject to approval, the project may be related to the student’s work situation and/or may involve laboratory or plant based work.

**Required Reading** Students will be responsible for reviewing the current literature on their project topic.

**Recommended Reading** Students will be responsible for reviewing the current literature on their project topic.

**Class Contact** Twelve hours per week comprising 1h of tutorial and 3h of practical laboratory work.

**Assessment** Oral presentation (20 min Power point presentation), 20%; Written report (5000 words), 80%.

**RBF6760 CHEMISTRY OF FOODS**

**Campus** Werribee

**Prerequisite(s)** Eligibility for entry to the Master of Science (Food Science).

**Content** The basic components forming the structure of food products consist of the natural materials assembled in relationships that can be altered by the presence of additives, ingredients and processing. The subject covers the composition and macrostructure of food, and the relationships between the basic components and structure and the additives. This will include the interactions between emulsifiers and flavours within a food matrix, and interactions between water-proteins, water, lipids, protein-proteins, protein-lipids, protein-carbohydrates, and carbohydrate-lipids. This subject will also address the influence of processing on basic components and interactions among food components.


**Class Contact** Six hours per week comprising of three hrs of lectures and three hrs of tutorials and practical work

**Assessment** Practical work, 20%; 2 Assignments (3000 words each), 30% (2x15%); Final examination (1x3 hrs) 50%.

**RBF6930 INDUSTRY TRAINING**

**Campus** Werribee (the unit will be offered at various food companies).

**Prerequisite(s)** Successful completion of two semesters of study or equivalent.

**Content** The unit will be based on a project agreed upon by an industry partner and a supervisor from the School of Molecular Sciences. An example of project will include impact of various types of starter cultures on acidity and resulting shelf life of yoghurt. Such type of project is proposed to be carried out at Nestle Dairy. Another example will include impact of exo-polysaccharide production on sensory properties of dairy foods. This type of project is suited for National Foods.

**Required Reading** The required reading will depend upon the type and nature of project students are undertaking. The names of text books will be provided depending on the type of work students are doing.
Recommended Reading: Students will be required to read relevant websites and concerned company’s profile. The websites will depend upon the nature of the project students will be undertaking. The students will have to read annual report and relevant information of the company.

Class Contact: 6 hours per week for 12 weeks for a total of 72 hours, subject to availability and approval by the course co-ordinator.

Assessment: Report of approximately 3000 words (80%); based on industry training or a project and an oral presentation (20%).

RBT8001 RESEARCH THESIS – SEM 1 (FULL-TIME)

RBT8002 RESEARCH THESIS – SEM 2 (FULL-TIME)

Campus: Werribee
Prerequisite(s): Eligibility for entry to a Master of Science or Doctor of Philosophy program.

RBT8011 RESEARCH THESIS – SEM 1 (PART-TIME)

RBT8012 RESEARCH THESIS – SEM 2 (PART-TIME)

Campus: Werribee
Prerequisite(s): Eligibility for entry to a Master of Science or Doctor of Philosophy program.

RCM5601 STATISTICAL FORECASTING

Campus: Footscray Park, Sydney, Hong Kong, Malaysia
Prerequisite(s): RCM1614 or equivalent


Required Reading: Nil.


Class Contact: Three hours per week for one semester, comprising two one-hour lectures and one one-hour laboratory.

Assessment: Project, 40%; Examination, 60%.

RCM5602 QUALITY MANAGEMENT AND STATISTICS

Campus: Footscray Park
Prerequisite(s): Two undergraduate statistics subjects.


Required Reading: To be advised by lecturer.

Class Contact: Three hour mix of lectures, tutorials, practice and laboratory classes.

Assessment: Final examination, 80%; Mid-semester tests, 20%.

RCM5800 OBJECT ORIENTED PROGRAMMING GD1

Campus: Footscray Park, Hong Kong
Prerequisite(s): Nil.

Content: Programming language; basic object oriented concepts; programming, algorithm development and elementary data structures objects and classes.

Required Reading: To be advised by lecturer.

Class Contact: Three hours per week for one semester comprising two hours of lectures and one one-hour practical.

Assessment: Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

RCM5802 INFORMATION SYSTEMS

Campus: Footscray Park, Hong Kong.
Prerequisite(s): Nil.

Content: Database concepts and design methodology; hierarchical, network and relational models; relational approach and relational calculus; object-oriented approach to database design; conceptual models and query interfaces; database management and administration functions, shared access control, security, recovery and query interfaces; study and use of fourth generation languages for query, update and report generation.

Required Reading: To be advised by lecturer.

Class Contact: Three hours per week for one semester comprising two hours of lectures and one one-hour practical.

Assessment: Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

RCM5803 DATA STRUCTURES AND PROGRAMMING

Campus: Footscray Park
Prerequisite(s): RCM5800 Object Oriented Programming GD1

Content: Program development and testing using Software Engineering principles; object oriented programming languages; organisation and manipulation of data; the software environment; object oriented design and analysis. Abstract data types.

Required Reading: To be advised by lecturer.

Class Contact: Three hours per week for one semester comprising one one-hour lecture and one two-hour practical.

Assessment: Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

RCM5805 COMMUNICATION AND NETWORKS

Campus: Footscray Park, Hong Kong.
Prerequisite(s): Nil.


Required Reading: To be advised by lecturer.

Class Contact: Three hours per week for one semester comprising two hours of lectures and one one-hour laboratory work.
Assessment Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

RCM5807 ADVANCED INFORMATION SYSTEMS
Campus Footscray Park, Hong Kong.
Prerequisite(s) RCM5802 Information Systems or equivalent.
Content Data analysis and modelling using the Enhanced Entity-Relationship model and normalisation. Constraints beyond the EER model, and advanced data modeling issues. Database transactions: concept, ACID properties, specification. Transaction processing: commit and rollback, concurrency control, locking, scheduling, and recovery. Database application development using embedded SQL.
Required Reading To be advised by lecturer.
Class Contact Two hour lecture and one hour laboratory per week.
Assessment Final examination, 80%; test, 20%.

RCM5813 ARTIFICIAL INTELLIGENCE
Campus Footscray Park
Prerequisite(s) Nil.
Content LISP; knowledge representation – semantic nets, problem solving, search, frames; knowledge based systems – rule-based systems; logic programming; developing an expert system.
Required Reading To be advised by lecturer.
Class Contact Three hours per week for one semester comprising two hours of lectures and one one-hour practical.
Assessment Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

RCM5820 NETWORK OPERATING SYSTEMS ADMINISTRATION
Campus Footscray Park
Prerequisite(s) RCM805 Communication and Networks.
Required Reading To be advised by the lecturer.
Class Contact Three hours per week for one semester comprising two one-hour lectures and one one-hour laboratory/tutorial.
Assessment Final examination, 50%; assignment and tests, 50%.

RCM5821 INTRODUCTION TO MULTIMEDIA SYSTEMS
Campus Footscray Park
Prerequisite(s) Nil.
Required Reading To be advised by the lecturer.
Class Contact Three hours per week for one semester, comprising one one-hour lectures and one two-hour laboratory/tutorial.
Assessment Final examination, 80%; assignments, 20%.

RCM5822 NETWORK MULTIMEDIA SYSTEMS
Campus Footscray Park
Prerequisite(s) RCM5821 Introduction to Multimedia Systems.
Class Contact Three hours per week for one semester, comprising two one-hour lectures and one one-hour laboratory/tutorial.
Assessment Final examination, 80%; assignments, 20%.

RCM5824 OBJECT ORIENTED PROGRAMMING GD2
Campus Footscray Park, Hong Kong
Prerequisite(s) RCM5800 Object Oriented Programming GD1
Content This subject provides practice to object oriented programming and methodology using advanced features and the application programming interface of the Java programming language. A deeper discussion of classes and objects, encapsulation, polymorphism, inheritance, relationships among classes of objects and programming with related classes along with exception handling, multithreading, file I/O and building GUI components.
Required Reading To be advised by lecturer.
Class Contact Three hours per week for one semester comprising two hours of lectures and one one-hour laboratory.
Recommended Reading Deitel, H.M., and Deitel, P.J., 2005, Java How to Program, 6th edn, Prentice-Hall.
Assessment Final examination, 75%; assignment and laboratory, 25%.

RCM6101 INDUSTRY PROJECT
Campus Footscray Park
Prerequisite(s) Nil.
Content The project work gives the students: an opportunity to work on a complex real-life problem; experience in liaising with industrial personnel from various sections of the sponsoring company; experience at defining a problem in precise terms; experience in searching the literature and using library facilities; experience at presenting reports in both written and verbal forms. In all cases, students operate individually under the supervision of a staff member and tackle a problem using appropriate methods of statistical analysis. Typical project areas are: multivariate data analysis; quality control studies; econometric modelling; time series forecasting; reliability modelling; design and analysis of experiments; production scheduling; A.I. application in industry; database construction; systems analysis and design; development of expert systems.
Required Reading To be advised by lecturer.
Class Contact Six hours per week for one semester comprising individual supervision.
Assessment Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.
RCM6102 THESIS (2 UNITS) (FULL-TIME)
( FOR ONE SEMESTER )

RCM6103 THESIS (4 UNITS) (FULL-TIME)
( FOR ONE SEMESTER )

Campus Footscray Park
Prerequisite(s) Nil.
Content The aim of this subject is to enable students to competently research an area of study utilising knowledge and skills gained in previous studies, and it consists of a project carried out by students on an individual basis. The project is expected to be an investigation of an approved topic, followed by the submission of a suitably formatted thesis in which the topic is introduced and formulated, the investigation described in detail, results and conclusions from the study are elaborated, and an extended discussion presented.
Required Reading To be advised by supervisor.
Class Contact No formal class contact, however, there will be regular meetings with the students’ supervisors.
Assessment The thesis will normally be assessed by at least two examiners from an appropriate areas of expertise.

RCM6105 THESIS (1 UNIT) (PART-TIME)
( FOR TWO SEMESTERS )

RCM6106 THESIS (2 UNITS) (PART-TIME)
( FOR TWO SEMESTERS )

Campus Footscray Park, Hong Kong
Prerequisite(s) Nil.
Content The aim of this subject is to enable students to competently research an area of study utilising knowledge and skills gained in previous studies, and it consists of a project carried out by students on an individual basis. The project is expected to be an investigation of an approved topic, followed by the submission of a suitably formatted thesis in which the topic is introduced and formulated, the investigation described in detail, results and conclusions from the study are elaborated, and an extended discussion presented.
Required Reading To be advised by supervisor.
Class Contact No formal class contact, however, there will be regular meetings with the students’ supervisors.
Assessment The thesis will normally be assessed by at least two examiners from an appropriate areas of expertise.

RCM6501 IMAGE PROCESSING ALGORITHMS

Campus Footscray Park
Prerequisite(s) Nil.
Content An introductory subject which covers the fundamental algorithms used in image processing and pattern recognition. The topics include: point, algebraic and geometric operations; smoothing and edge detection, linear convolution, median and max/min filters, segmentation, Hough methods, morphological operations; image coding and compression. Introduction to pattern recognition algorithms. Artificial neural networks for pattern recognition, face recognition.
Required Reading To be advised by lecturer.
Class Contact Three hours per week comprising lectures/practicals/tutorials.
Assessment Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

RCM6606 TIME SERIES ANALYSIS

Campus Footscray Park
Prerequisite(s) RCM5601 or equivalent.
Required Reading To be advised by lecturer.
Class Contact Three hours per week comprising two hours lecture and one hour laboratory.
Assessment Final examination, 50%; project, 50%.

RCM6607 STATISTICAL COMPUTING

Campus Footscray Park
Prerequisite(s) Nil.
Required Reading To be advised by lecturer.
Class Contact Three hours per week for one semester comprising lecture and practical.
Assessment Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

RCM6702 INTERNET DATA REPRESENTATION 1

Campus Footscray Park, Hong Kong, Malaysia
Prerequisite(s) RCM6822 Internet Programming or equivalent subject.
Content DRL data access and use; Metadata, such as Resource Description Framework; DRL tools; DRL definition and declaration, such as XML Schema; Parsers and validators; Presentation of DRL data; Research applications of the DRL.
Recommended Reading http://www.w3.org/TR/REC-xml; http://www.xml.com/  
Class Contact Two hour lecture and one laboratory/tutorial per week.
Assessment Final examination, 70%; Assignments, 30%.
RCM6710 INTERNET DATA MANAGEMENT 1
Campus Footscray Park, Sydney, Hong Kong, Malaysia
Prerequisite(s) RCM2313 or Internet Programming subject.
Content Introduction to Class; Introduction to ASP.NET; Introduction to Visual Studio.NET; Using Server Controls; Using ASP.NET Rich Controls; Using Visual Basic.NET Within an ASP.NET Page; Managing Data Sources; Building Data-Driven ASP.NET Applications; Building Data-Driven Web Applications; Configuring an ASP.NET Application; Troubleshooting and Deploying an ASP.NET Application.
Required Reading Introduction to ASP.NET, Kathleen Kalata, © 2002 Course Technology, 0-619-06321-1.
Class Contact Three hours per week for one semester, comprising one two-hour lecture and one one-hour laboratory/tutorial.
Assessment 15% Labs 35% Assignment 25% Mid-Semester Test 25% Final Test In order to pass, students must obtain at least 25% of Labs and Assignment, and 25% of Tests in this subject.

RCM6760 RESEARCH PRACTICE, ETHICS AND COMMUNICATION IN FOOD SCIENCE AND TECHNOLOGY
Campus Werribee
Prerequisite(s) Eligibility for entry to the Master of Science (Food Science).
Content Biometrical techniques in Food Science and Technology. Theories of research process and ethics. Creativity in research and the concepts of discovery and innovation. Experiment organisation, data collection, critical evaluation and result interpretation. Methods of communicating research findings.
Required Reading To be advised by lecturers.
Class Contact Six hours per week for one semester comprising 3hours of lectures and 3hours of tutorials/practicals.
Assessment Assignments, 20% (2 x 10); Practical work, 30%; Final exam, 1 x three hrs, 50%.

RCM6819 USER INTERFACE DESIGN
Campus Hong Kong, Footscray Park.
Prerequisite(s) RCM6822 Internet Programming
Class Contact 13 x three hour lectures/tutorials.
Assessment Assignment, 40%; final examination, 60%.

RCM6821 DECISION SUPPORT TECHNOLOGY
Campus Hong Kong, Footscray
Prerequisite(s) Nil
Content Processes and phases of organisational decision making and modelling. Online analytic processing (OLAP) vs online transaction processing (OLTP). Decision support framework and applications. Data requirements and benefits of decision support systems. Structure, components and types of decision support systems. Data mining concepts. Data warehouse vs production systems. Warehouse data characteristics and requirements. Data fusion and data scrubbing. Data models for data warehouse and data mart. Star schemas and hypercubes. Multidimensional analysis ROLAP MOLAP and HOLAP. Data warehouse administration. Warehouse database management technology.
Recommended Reading Inmon WH, 2002, Building the Data Warehouse, 3rd edn, Wiley
Class Contact Three hours per week two hours lecture and one-hour laboratory/tutorial.
Assessment Final examination 70%. Assignment/Test 30%.
**RCM6822 INTERNET PROGRAMMING**

**Campus** Footscray Park, Hong Kong  
**Prerequisite(s)** Competency in Java.  
**Required Reading** Deitel, Deitel and Nieto, 2001 or later, *Internet and World Wide Web: How to Program*, Prentice Hall. D.R. Watson’s five hypertexts on development, including java 3D and Virtual Reality Modeling of the processes and current methodologies used in the design and content.  
**Recommended Reading** Watson’s five hypertexts on development, including java 3D and Virtual Reality Modeling of the processes and current methodologies used in the design and content.  
**Assessment** Final Examination 58%, mid-semester practical test 30%, laboratory 12%.

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**RCM6823 DATABASE DESIGN, MANAGEMENT AND ADMINISTRATION**

**Campus** Footscray Park, Hong Kong  
**Prerequisite(s)** Good knowledge of relational databases; basic understanding of UNIX.  
**Content** Database Environment. Database planning, design and administration. Methodology – physical database design. Database integrity and security. Transaction management. Distributed database systems.  
**Class Contact** Two hour lectures and one hour laboratory per week.  
**Assessment** Final Examination 70%; Assignment, 30%.

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**RCM6825 MULTIMEDIA SYSTEMS DESIGN AND DEVELOPMENT**

**Campus** Footscray Park  
**Prerequisite(s)** Introduction to Multimedia RCM5821  
**Content** The aim of this subject is to develop a clear understanding of the processes and current methodologies used in the design and development of multimedia systems. The subject introduces some new 3D web graphics technologies related to multimedia system development, including java 3D and Virtual Reality Modeling Language (VRML).  
**Required Reading** To be advised by the lecturer  
**Class Contact** Three hours per week for one semester, comprising two one-hour lectures and one one-hour laboratory.
include: Analysing Requirements, Prototyping, Usability Evaluation, etc.


**Class Contact** Two hour lecture and one hour laboratory per week.

**Assessment** Contributions to projects, laboratories and seminars, 50%; assignments, 50%.

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**RCM6843 SOFTWARE ENGINEERING PROJECT**

**Campus** Footscray Park, Hong Kong, Malaysia

**Prerequisite(s)** RCM6841 Software Engineering 2

**Content** Each student will work on a project as a member of a software development team. Students will be required to present written reports and give oral presentations during the course of the project. Projects will focus on industrial and business applications and will incorporate areas such as user interface development, database management systems, networking, web based and general application development environments.

**Recommended Reading** Research articles in Software Engineering; Course notes and relevant textbooks.

**Class Contact** Three hours per week, primarily in the laboratory.

**Assessment** Performance in project oral presentations, 30%; Quality of submitted reports, 70%.

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**RCM6844 SOFTWARE ENGINEERING 1**

**Campus** Footscray Park, Hong Kong, Malaysia

**Prerequisite(s)** Nil.

**Content** This subject covers software engineering knowledge in areas of software management, software verification and validation. Review topics including software process and software life-cycle models, software process improvement, requirement, classical analysis and design, object oriented analysis and design. Detailed topics include inspection, review, software testing, software estimation, project planning, project personnel and organization.


**Class Contact** Two hours lecture and one hour laboratory per week for one semester.

**Assessment** Final examination, 70%; assignment, 30%. Students must obtain at least 40% standard in the practices and assignment and at least 40% on the final examination, and obtain an overall mark of 50%.

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**RCM6845 OBJECT ORIENTED TECHNOLOGY**

**Campus** Footscray Park, Hong Kong, Malaysia

**Prerequisite(s)** Two semesters of Java programming.

**Content** JavaBeans Component Model – Overview, Inspection, Properties of Beans; Networking – InetAddress Class, URL Class, URLDecoder Class, URLConnection Class, Sockets, Server Sockets, Datagram Clients/Servers; Servlet overview and architecture, HttpServlet Class, HttpServletRequest Interface, HttpServletResponse Interface, Handling HTTP get and post Requests, setting up the Apache Tomcat Server, deploying a web application, session tracking; JSP Overview, scripting components, standard actions, directive, custom tag libraries; EJB Overview, session beans, EJB transactions.


**Class Contact** Two hours lecture and one hour laboratory/tutorial per week for one semester.

**Assessment** Final examination, 70%; Practical/Assignment, 30%. Students must obtain at least 40% standard in the practicals and assignment and at least 40% on the final examination, and obtain an overall mark of 50%.

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**RCM6846 OBJECT ORIENTED DESIGN**

**Campus** Footscray Park, Hong Kong, Malaysia

**Prerequisite(s)** RCM5824 Object Oriented Programming GD2 or equivalent.

**Content** Unified Modeling Language (UML); Introduction to Rational Rose; Unified Method and the design of the domain layer; Concepts of persistence and transactions in an OO context; Interaction layer design considerations; Introduction to an Object Oriented development environment and OODBMS (JADE); Implementation and deployment models; Packages, subsystems and models; Design patterns and frameworks.


**Assessment** Two hours lecture and one hour laboratory/tutorial per week for one semester.

**Class Contact** Two hours lecture and one hour laboratory/tutorial per week for one semester.

**Assessment** Final examination, 70%; assignment, 30%. Students must obtain at least 40% standard in the assignment and at least 40% on the final examination, and obtain an overall mark of 50%.

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**RCM6902 MATHEMATICAL PROGRAMMING 1**

**Campus** Footscray Park

**Prerequisite(s)** Consent of lecturer.

**Content** Overview of mathematical programming; review of linear constraints, convexity; the primal and dual problems; the simplex method, slack variables, optimality, post-optimality and sensitivity analysis, integer (linear) programs; commercial packages for mathematical programming, Applied LP Models.

**Recommended Reading** To be advised by lecturer.

**Assessment** Three hours per week for one semester comprising lectures/tutorials.

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**RCM6904 SIMULATION**

**Campus** Footscray Park

**Prerequisite(s)** Nil.

**Content** Problem formulation using the concepts of entities, attributes, files, events etc. Generating random numbers from discrete and continuous distributions. Practical coding experience.
using SLAMII including debugging and verifying that the translated model executes as intended. Systems approach, flow diagram and problem analysis for discrete event systems. Network modelling involving queuing, resources, pre-emption, priorities and machine breakdown. Design and analysis of simulation experiments. Practical coding experience using SLAMII.

**Required Reading** To be advised by lecturer.

**Class Contact** Three hours per week for one semester comprising lectures/tutorials.

**Assessment** Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

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**RCM6905 SEQUENCING AND SCHEDULING**

**Campus** Footscray Park

**Prerequisite(s)** Nil.


**Class Contact** Three hours per week for one semester comprising lectures and tutorials.

**Assessment** Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

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**RCM6906 OPTIMISATION TECHNIQUES**

**Campus** Footscray Park

**Prerequisite(s)** Consent of lecturer.

**Content** Lecture Program Topics: Decision Tree and AHP; Maximal flow problems, Shortest-route problem, Minimal spanning tree problem, Estimating network flows; Queuing. Theory; Combinatorial Models: CSP, SCP, & BPP. Spreadsheet Analysis. Required Reading To be advised by lecturer.

**Class Contact** Three hours per week for one semester comprising lectures/tutorials.

**Assessment** Will be based on a combination of examination, assignments, tests and presentations according to a formula to be provided during the first week of classes.

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**RCS5111 PRINCIPLES OF ENVIRONMENTAL SCIENCE AND MANAGEMENT**

**Campus** Footscray Park

**Prerequisite(s)** Nil.


**Required Reading** There are no standard textbooks for this subject. Reading to be advised by the lecturer.


**Class Contact** Three hours of lectures per week for one semester.

**Assessment** Assessment will be by four assignments (4 x 10% = 40%) and one end of semester exam (60%). Each assignment has a 1,000 word limit (no more than 10 pages) and may be supplemented with an appropriate number of figures, charts and/or tables. Assignments and assignment deadlines will be spread evenly across the semester. There are no special conditions for exams.

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**RCS5121 ENVIRONMENTAL LAW AND STANDARDS 1**

**Campus** Footscray Park

**Prerequisite(s)** Nil.


**Class Contact** Three hours of lectures per week for one semester.

**Assessment** Continuous assessment by assignments, presentations and reports.

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**RCS5131 WATER POLLUTION MONITORING & LIQUID WASTE MANAGEMENT**

**Campus** Footscray Park

**Prerequisite(s)** Nil.

**RCS5132 ENVIRONMENTAL LAW AND STANDARDS 2**

**Campus** Footscray Park  
**Prerequisite(s)** Nil.  
**Content** Discharge licence, Water quality criteria, standards and objectives. Laws regarding solid waste disposal. Law enforcement. Case studies in Victoria. 
**Class Contact** Three hours of lectures per week for one semester.  
**Assessment** Continuous assessment by assignments, presentations and reports.

**RCS5141 AIR QUALITY MANAGEMENT**  
**Campus** Footscray Park  
**Prerequisite(s)** Nil.  
**Content** Atmospheric properties and air pollution. Air pollutant transport at the micro, meso and macro scales. Global climate change as a result of anthropogenic activities. Factors controlling the spread of contaminants in the atmosphere. Effects of air pollution on visibility, weather, climate, vegetation and human health. EPA and SEPP policies and controls; Class 1, 2 and 3 pollutants. Health risk assessment. Computer modelling of air pollution with AUSPLUME. Gaussian plume analysis. Pollutant dispersal from stacks. Odour monitoring and control. Air pollution monitoring and control equipment. Indoor Air pollution. Case studies.  
**Required Reading** To be advised by lecturer.  
**Class Contact** Three hours of lectures or computer labs per week for one semester.  
**Assessment** Assignments, 40%; examination, 60%.

**RCS5172 SOLID WASTE MANAGEMENT**  
**Campus** Footscray Park  
**Prerequisite(s)** Nil.  
**Content** Nature and sources of solid wastes; hazardous waste handling; incineration; landfills; other disposal alternatives; monitoring and control.  
**Required Reading** To be advised by lecturer.  
**Class Contact** Three hours per week for one semester.  
**Assessment** Assignment and site visit reports, 40%; examination, 60%.

**RCS5192 CLEANER PRODUCTION TECHNOLOGY AND WASTE MINIMISATION**  
**Campus** Footscray Park  
**Prerequisite(s)** Nil.  
**Required Reading** To be advised by lecturer.  
**Class Contact** Three hours per week for one semester, consisting of lectures and site visits.  
**Assessment** Assignment and site visit reports, 40%; examination, 60%.

**RCS6000 PROJECT**  
**Campus** Footscray Park  
**Prerequisite(s)** Nil. Normally requires completion of one full year of coursework equivalent to the Graduate Diploma in Environmental Management. In some circumstances a limited number of coursework subjects may be taken concurrently with the project.  
**Content** A program of approved research and enquiry into an area related to environmental management. The project may be conducted on or off campus and may involve an industry partner.  
**Required Reading** To be advised by project supervisor(s)  
**Recommended Reading** To be advised by project supervisor(s)  
**Class Contact** 150 hrs of research activity over the course of the program  
**Teaching Method** Academic and/or Industry supervision  
**Assessment** By examination of a completed project report, normally in the range of 12,000 to 20,000 words.

**RFBS115 CLINICAL PHARMACOLOGY & PATHOLOGY FOR CHINESE HERBAL MEDICINE**  
**Campus** City Flinders, St Albans  
**Prerequisite(s)** Nil.  
**Content** Clinical Pharmacology: This subject provides students with the opportunity to develop an understanding of the principles underlying the actions and interactions of drugs, poisons and xenobiotics relating to the use of Herbal Medicine. The subject will provide an overview of the scope of pharmacology and toxicology with particular emphasis on the interrelationships between herbs and drugs. Topics addressed will include concentration response relationships, adsorption of drugs and xenobiotics, and drug and xenobiotic distribution. The metabolism of xenobiotics including roles in drug elimination, detoxification, production of toxic and mutagenic intermediates, excretion, pharmacokinetics, and clinical aspects will also be addressed. Clinical Features For Disease: Aetiology, pathogenesis, morphology and clinical manifestation of disease processes occurring in the organ systems, with emphasis on the clinical manifestations and differentiation of symptoms rather than on detailed pathological changes; Main pathology tests used for organ systems; Demonstration of simple diagnostic techniques that will cover the following areas. Pacicum and demonstration: use of stethoscope, sphygmonanometer; differentiation of DVT pain and other pain; palpitation of internal organs; urine testing with dip-stick; use of ophthalmoscope and audiometer; visual inspection of the throat; inspection of skin lesions for neoplastic change; looking at blood film; looking at X-rays and computerised tomography (CAT) scans.  
tools such as ORF finder, Flip-Six-Frames, BestFit and ClustalW and PCR-Prime. Structure-function relationships will also be examined in selected proteins from the PDB database, and using programs such as Rasmol, Chime or Protein Explorer.

**Required Reading**


**Recommended Reading**


**Class Contact**

Three hours of practical workshops or computer sessions per week for one semester.

**Assessment**

Practical exercises and reports (40%); assignment (3000 words, 30%); final examination (2h, 30%).

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**RMS5140 BIOPROCESSING TECHNOLOGY PRINCIPLES**

**Campus** Werribee

**Prerequisite(s)** Nil.

**Content** Principles of biochemical engineering, material and energy balance, fermentation technologies, bioreactor design and applications, harvesting and purification of bioproducts, filtration systems and commercial-scale applications of biological-based systems.

**Required Reading**


**Recommended Reading**


**Class Contact**

Three hours per week of lectures/tutorials.

**Assessment**

One assignments (3000 words, 30%); examination (3h, 70%).

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**RMS5145 BIOPROCESSING TECHNOLOGY APPLICATIONS**

**Campus** Werribee

**Prerequisite(s) or Co-requisite** Bioprocessing Technology Principles

**Content** Laboratory-scale experiments will be conducted that train students in the areas of downstream processing, plant and algal products, heat-exchange, fermentation, fluid flow, enzyme engineering, biomass conversion and sustainable energy systems.

**Required Reading**


**Recommended Reading**


**Class Contact**

Three hours/week of laboratory practicals.

**Assessment**

Laboratory reports (100%).

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**RMS5150 ETHICS AND REGULATORY AFFAIRS IN BIOTECHNOLOGY**

**Campus** Werribee

**Prerequisite(s)** Nil.

**Content** This unit will examine social and technical issues in biotechnology from an ethical viewpoint. Environmental and human impacts of genetic engineering will be discussed. The obligations to patients and the community will be described in the regulations governing manufacture and clinical trials of new drugs. Comparisons will be made between drugs and devices, human and veterinary products, and different national systems.

**Required Reading**


**Recommended Reading**


Websites for the US Food and Drug Administration, the European Agency for the Evaluation of Medicinal Products, and the Australian Therapeutic Goods Administration, and others, will be referred to throughout this unit.

**Class Contact**

Three hours lectures per week for one semester.

**Assessment**

One assignment (3000 words, 50%); final examination (3h, 50%).

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**RMS5160 INTELLECTUAL PROPERTY AND COMMERCIALISATION IN BIOTECHNOLOGY**

**Campus** Werribee

**Prerequisite(s)** Nil.

**Content** This unit of study will examine the need for patent protection, patent procedures in Australia, the USA and Europe, and methods of patent searching. Laboratory practices needed in protecting discoveries will be described, as well as the defence of intellectual property (IP) rights. The various options for commercial development will be compared, including licensing, partnerships, and start-up companies. The problems of raising finance will be demonstrated with the preparation of a business plan. Case studies will be used to illustrate both IP and commercialisation issues, and all students will prepare a business plan for a biotechnology product.

**Required Reading**


**Recommended Reading**


**Class Contact**

Three hours per week lectures/tutorials for one semester.

**Assessment**

One assignment (3000 words, 50%); final examination (3h, 50%).

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**RMS6130 BIOINFORMATICS I**

**Campus** Werribee

**Prerequisite(s) or Corequisite(s)** Molecular Genetics Theory, Functional Genomics and Bioinformatics Theory, Functional Genomics and Bioinformatics Workshops

**Content** Topics will include sequence alignment methods, substitution scores and gap penalties, the HMM model, recognition of motifs and patterns, phylogenetic data analysis and tree-building methods, detection of functional sites in DNA such as ORFs and CpG islands, folding classes in proteins, protein structure prediction and homology modelling.

**Required Reading**


**Recommended Reading**


**Class Contact**

Three hours per week of lectures and/or computer laboratory for one semester.

**Assessment**

Practicals and workshops (50%), tests (5 x 15min, 10%) and final examination (2 hours, 40%).
RM56135 BIOINFORMATICS II
Campus Werribee
Prerequisite(s) or Corequisite(s) Molecular Genetics Theory, Functional Genomics & Bioinformatics Theory, Functional Genomics & Bioinformatics Workshops, Bioinformatics I
Content Topics will include sequence assembly and finishing, large-scale genome analysis, simple and integrated genome and proteome circuits. In addition, examples of how the programming language, Perl, is used for biological analysis will be examined, such as the use of Perl modules and subroutines to find a common ancestor, splice junction recognition and enzyme kinetics.
Class Contact Three hours per week of lectures and/or tutorials with some computer laboratory demonstrations.
Assessment Practicals and workshops (30%); tests (5 x 15 min, 10%) and final examination (3h, 60%).

RM56140 CELL CULTURE AND FERMENTATION TECHNOLOGY
Campus Werribee
Prerequisite(s) Nil.
Content This subject will provide students with knowledge in the cultivation of microorganisms and higher eukaryotic cells at the small-scale laboratory and commercial scales. This includes plant culture, microbial fermentations and animal cell culture techniques. Topics will include batch, fed-batch and continuous cultures and bioreactors. The technology of stem cells will also be introduced and ethical issues regarding these will be discussed.
Required Reading Bryce, C.F.A., 1999, Fermentation Microbiology and Biotechnology, T&F STM.
Class Contact Three hours a week, comprising lectures and practical work each alternate week.
Assessment Three practical reports (40%), final examination (3h, 60%).

RM56141 ANIMAL AND PLANT BIOTECHNOLOGY
Campus Werribee
Prerequisite(s) Molecular Genetics Theory.
Content This subject will provide an in-depth understanding of how animal productivity and efficiency have been improved using technology such as embryo transfer, embryo splitting, in vitro fertilisation and cloning; principles of genetic engineering as applied to a wide range of plant species including wheat, canola oil and soy beans; use of transgenic technology to produce novel proteins and other biomolecules for the pharmaceutical industry.

RM56142 BIOTECHNOLOGY RESEARCH METHODS
Campus Werribee
Prerequisite(s) Nil.
Content The content of this subject will include information on how to write a literature review, information on how to source the most appropriate techniques and methodology that are used in the biotechnology industry and to provide a framework for formulating a research proposal. Other items covered will include information on the critical analysis of research papers, the importance of milestones for the research project and an overview of statistical methods that will be used to interpret the data. The subject will also include information on preparing seminar presentations, on techniques for preparing and presenting budgets and preparing ethic approval applications.
Class Contact Class contact will be three hours per week including lectures, tutorials and workshops for one semester.
Assessment Assessment for this subject will include two assignments (2000 words each, 30% each), a seminar presentation (15%) and a final examination (2h, 25%).

RM56145 PROTEIN PRODUCTION, PURIFICATION & ANALYSIS
Campus Werribee
Prerequisite(s) Nil.
Content Topics covered in the subject will include protein production in mammalian, bacterial, yeast and insect cell expression systems, protein purification and characterization using methods such as SDS-PAGE, purification using affinity and ion-exchange chromatography, protein crystallization, determination of protein structure, principles of X-ray crystallography and NMR in determining the structure of biological molecules including proteins.
Class Contact Three hours a week, lectures, tutorials or practicals.
Assessment Practical reports (20%); one assignment (3000 words, 30%); final examination (3h, 50%).

RM56170 DRUG DESIGN & DEVELOPMENT
Campus Werribee
Prerequisite(s) First year undergraduate chemistry.
Content The concept of drugs and drug targets; drug action at proteins, nucleic acids and receptors; structural considerations; drug discovery, design and development; drug-target interactions; pharmacokinetics and quantitative structure-activity relationships (QSAR); combinatorial synthesis and computational chemistry in
medicinal chemistry; specific drugs such as antibacterials, opium analogics, etc.; case studies with respect to rational drug design.  


Class Contact Two hours lectures and one hour computer laboratory per week for one semester. 

Assessment One assignment (3000 words, 20%); one test (1 h each, 20% each) and final examination (3h, 60%). 

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RKP6001 DEVELOPMENT OF PACKAGING SYSTEMS  

Campus Werribee  

Prerequisite(s) Nil. 

Content The module consists of theories, overviews, calculations, cases and assignments, etc. The student will be provided with new theories as well with the application of formerly addressed theories. The content will address: Management of packaging development processes, involved disciplines and their activities, planning and control; The packaging chain, most relevant issues, trends and developments; Relevant legislation and the way to involve it into the development process; Tools to be used in the development process; Overview of principles of packaging equipment, accuracy, tooling, conditions, efficiency, etc; Steps, activities, pitfalls in development processes of packaging systems. 


Class Contact 36 hours, equivalent to three hrs lecturing time per week for one semester. Normally to be delivered in block residential teaching modes. 

Assessment Assignment: 50%; Presentation: 50%. 

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RKP6002 MARKETING RESEARCH  

Campus Werribee  

Prerequisite(s) Nil. 

Content The student is provided with the following concepts, theories, technologies and opinions, etc. Goals and limitations of marketing research, Different market research techniques, such as qualitative and quantitative research, desk research, field research, Researching of cost level feasibility in the market; Product concept testing; In-home use testing; Nielsen-out; Association techniques; Multi-attribute modeling; etc. 

Required Reading Opatow, L. (1989), Marketing Research as a Strategy tool, in Packaging Strategy, Meeting the Challenge of the market; Product concept testing; In-home use testing; Nielsen-out; Association techniques; Multi-attribute modeling; etc. 


Class Contact 27 hours, equivalent to two hrs lecturing time per week for one semester. Normally to be delivered in block residential teaching modes. 

Assessment Written group assignment: 70%; Group presentation: 30 %. 

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RKP6003 COSTING METHODOLOGIES AND IMPACTS  

Campus Werribee  

Prerequisite(s) Nil. 

Content The subject provides insight in the following concepts, theories, technologies and opinions, etc. Historic and standard costs; Methods of cost classification; Cash flow; Fixed and variable costs; Absorption and direct costing, actively based costing; Cost interpretation; Cost price calculation. 


Class Contact 18 hours, normally equivalent to 1.5 hrs lecturing time per week for one semester. Normally to be delivered in block residential teaching modes. 

Assessment Written assignment: 50%; Examination: 50 %. 

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RKP6004 INVESTMENT/CAPITAL ANALYSIS AND BUDGETING  

Campus Werribee  

Prerequisite(s) The subject ‘Costing methodologies and impacts’ is expected to have been studied (not necessarily successfully completed). 

Content The subject provides insight in a number of relevant investment concepts, theories, technologies and opinions, such as: Character of cash flow and cash flow analyses; Rating methodologies; Net Present Value, Break-even, Payback and discounted Payback Period, Average Return on Book Value of Accounting Rate of Return, Internal Rate of Return, Profitability Index of Present Value Ratio; Eight steps and four components of investment decisions; Methodologies for understanding insecurities and risks (such as Simulation and Scene-analyses); CAPM and WACC; Project risks and returns. 


Class Contact 27 hours, equivalent to two hrs lecturing time per week for one semester. Normally to be delivered in block residential teaching modes. 

Assessment Examination: 100%. 

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RKP6005 QUALITY ASSURANCE AND MANAGEMENT  

Campus Werribee  

Prerequisite(s) The subject ‘Costing methodologies and impacts’ is expected to have been studied (not necessarily successfully completed). 

Content The following content will be delivered: The concept of ‘quality’; Quality as an ability of products, processes and organisation to perform as necessary; Principles of quality management in the product realisation process (design, develop, produce); Quality management models (such as EFQM, ISO9001:2000); Quality improvement programs (such as Kaizen, Six Sigma); The most common methods and techniques to control and improve the quality of products and organization; Quality management in the supply chain. 


Class Contact 18 hours, 1.5 hrs lecturing time per week for one semester. Normally to be delivered in block residential teaching modes. 

Assessment Case-study assignment: 100%. 

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RPK6006 OPERATIONAL STRATEGIES

Campus Werribee

Prerequisite(s) Students have studied the following subjects: Development of Packaging Systems, Costing methodologies and Impacts, Investment/Capital Analysis and Budgeting, Business & Marketing Strategies.

Content The subject provides insight in the following concepts, theories, technologies and opinions, etc.: Strategic operational issues; Strategic operational decision areas; Horizontal and vertical concepts of integration; Ins and outs of make or buy decisions; Strategic matters of quality control; Continuous and discontinuous improvement processes; Competence building and competence management.


Class Contact 27 hours, normally equivalent to three hrs lecturing time per week for one semester. Normally to be delivered in block residential teaching modes.

Assessment Written group assignment, 100 %.

RPK6007 BUSINESS AND MARKETING STRATEGY

Campus Werribee

Prerequisite(s) The student has studied the following subjects: Investment/Capital Analyses and Budgeting, Marketing research.

Content The following content (theory, content, discussion, cases) will be delivered:
- Trends in external environment on macro- and meso-level; Models of Porter and Kotler; Operational, tactical and strategic planning; SWOT-analysis, GAP-analysis; Key-inputs; Port folio-analysis including product-life-cycle influences; Competition vs. ‘the rules of the game’; Needs analysis


Class Contact 27 hours, equivalent to two hrs lecturing time per week for one semester. Normally to be delivered in block residential teaching modes.

Assessment Written assignment: 100%.

RPK6008 PACKAGING STRATEGY DEVELOPMENT AND IMPLEMENTATION

Campus Werribee

Prerequisite(s) Being the cap-stone subject it is required that students have studied the subjects of: Development of Packaging Systems, Marketing Research, Costing Methodologies, Investment/Capital Analysis and Budgeting, Quality Assurance and Management, Operational Strategies, Business and Marketing Strategy.

Content The subject examines existing concepts, theories and opinions on the development and implementation of corporate packaging policies and related strategies. New theories will be explored, discussed and assessed.
- The subject will focus on the practicability of formerly addressed theories on packaging issues. For instance: The direct correlation of packaging strategy with the character and philosophy of the company and target market as well as with the anticipated technological and societal developments; Different disciplines of packaging policy; The relation of packaging policy to marketing, finance, operations and internal and external environment; Case presentations.


Class Contact 36 hours, equivalent to three hrs lecturing time per week for one semester. Normally to be delivered in block residential teaching modes.

Assessment Written group assignment, 70 %; Group presentation, 30 %.

VCC8001 / 8001 RESEARCH THESIS (FULL-TIME, SEM1/2)

Campus Footscray Park

Prerequisite(s) Nil.

Content The subject will enable students to: identify a research problem and critically review the relevant literature; determine appropriate methods to study the problem; collect, and analyse data, and generate results using suitable statistical and analytical techniques; draw conclusions, critically evaluate the process undertaken and make recommendations for future research and for practice; present the results of the research undertaken, both clearly and accurately in a written thesis. The research topic chosen will allow the candidate to develop a methodology and to apply it to an appropriate problem or situation. The thesis will normally be from 15,000 to 25,000 words. It will report on independently conducted research which demonstrates the student’s ability to clearly define a problem, to undertake a detailed literature search and review the literature on the topic area. The student shall also demonstrate both the ability to develop and/or apply models to study the problem and good data selection, collection and analysis skills. Students will normally be supervised by an academic member of the Department of Civil and Building Engineering and by a joint supervisor external to the Department. The external supervisor will be an academic from another Department of Victoria University or from another institution or an industry practitioner.

Required Reading To be advised by lecturer.

Class Contact Twelve hours per week for one semester.

Assessment Before commencing actual research, students must complete, to the satisfaction of the research supervisor, a paper critically reviewing the literature and providing a clear outline of the proposed research methodology to complete the thesis. The final thesis will be assessed by two examiners with expertise in the area of the research. These examiners may be internal or external to the Department or the institution and will not include the supervisors. Students may be asked to present themselves for oral or written examination by these examiners, at the examiners’ discretion. Each examiner will independently recommend one of the following outcomes to his/her assessment of the thesis; (a) pass without further examination; (b) pass, subject to corrections to the satisfaction of the Department’s Research and Graduate Studies Committee; (c) candidate to pass a written or oral examination to pass thesis; (d) deferred for resubmission after major revision; (e) fail. In the event that there is disagreement between the examiners, a third examiner will be appointed.
VCC8011/012 RESEARCH THESIS (PART-TIME, SEMESTER 1/2)

Campus Footscray Park
Prerequisite(s) Nil.

Content The subject will enable students to: identify a research problem and critically review the relevant literature; determine appropriate methods to study the problem; collect, and analyse data, and generate results using suitable statistical and analytical techniques; draw conclusions, critically evaluate the process undertaken and make recommendations for future research and for practice; present the results of the research undertaken, both clearly and accurately in a written thesis. The research topic chosen will allow the candidate to develop a methodology and to apply it to an appropriate problem or situation. The thesis will normally be from 15,000 to 25,000 words. It will report on independently conducted research which demonstrates the student’s ability to clearly define a problem, to undertake a detailed literature search and review the literature on the topic area. The student shall also demonstrate both the ability to develop and/or apply models to study the problem and good data selection, collection and analysis skills. Students will normally be supervised by an academic member of the School of the Built Environment and by a joint supervisor external to the normally be supervised by an academic member of the School of the Built Environment and by a joint supervisor external to the university. The external supervisor will be an academic from another institution or from industry.

Required Reading To be advised by lecturer.

Class Contact Six hours per week for two semesters.

Assessment Before commencing actual research, students must complete, to the satisfaction of the research supervisor, a paper critically reviewing the literature and providing a clear outline of the proposed research methodology to complete the thesis. The final thesis will be assessed by two examiners with expertise in the area of the research. These examiners may be internal or external to the School or the institution and will not include the supervisors. Students may be asked to present themselves for oral or written examination by these examiners, at the examiners’ discretion. Each examiner will independently recommend one of the following outcomes to his/her assessment of the thesis: (a) pass without further examinations; (b) pass, subject to corrections to the satisfaction of the School’s Research and Graduate Studies Committee; (c) candidate to pass a written or oral examination to pass thesis; (d) deferred for resubmission after major revision; (e) fail. In the event that there is disagreement between the examiners, a third examiner will be appointed.

VCC8040 PROJECT WORK (FULL-TIME)

Campus Footscray Park
Prerequisite(s) Nil.

Content The subject enables students to: identify a project problem and critically review relevant literature; determine appropriate methods to study the problem; collect, and analyse data, and generate results using suitable statistical and analytical techniques; draw conclusions, critically evaluate the process undertaken and make recommendations for future research and for practice; present the results of the project undertaken, both clearly and accurately in a written report. The report topic chosen will allow the candidate to develop a methodology and to apply it to an appropriate problem or situation. The report will normally be from 8000 to 15,000 words. It will detail the problem, relevant literature, analysis conducted, conclusions and recommendations. Students will be supervised by an academic member of staff and where appropriate by a supervisor from another institution or from industry.

Required Reading To be advised by lecturer.

Class Contact Six hours per week for one semester.

Assessment Assessment will be by project work and report.

VCP5600 PROJECT MANAGEMENT FUNDAMENTALS

Campus Footscray Park
Prerequisite(s) Nil.

Content The subject will introduce and define project management as applicable to the concept, development design and documentation, construction and maintenance, of buildings and to introduce participants to Project Management – the emerging profession. The subject examines the following topics. Introduction to Project Management: PM in building industry; definitions of the Management and Project Management. Construction industry in economy and the building industry; the building process in private sector. Structure of building industry – historically and the current trends; managerial perspective; trend towards construction/project management. Analytical model of building industry: operational model of building industry, urban geography and Australia – bird’s eye view. Building process in public sector; past history and current trends in management of public projects. Comparison of performance public/private sectors; overview of future developments. The interrelationship between owner, developer, financial sources, designers and contractors. Government body as owner/developer; invest financiers as owner/users. Government control and regulations applicable to buildings. (New BCA.) Role and task of functional activities of project managers: setting of project objectives; feasibility analysis; setting of budget; control of contract time and quality; risk apportionment between various parties. Design to user requirements: planning for life-cycle of the facility; management of small to medium size projects; role descriptions of project manager, architect, consultants and owners. Environmental and social constraints. Preparation EIS for building development project. Case studies illustrating the various aspects of project management.

Required Reading To be advised by lecturer.


Class Contact Three hours per week for one semester.

Assessment Assignments, 20%; group project, 40%; examination, 40%. Students must attain a mark of 50% in each assessable component to pass this subject. Supplementary assessment will not be available.

VCP5610 PROJECT MANAGEMENT PLANNING AND CONTROL

Campus Footscray Park
Prerequisite(s) VCP5600 Project Management Fundamentals (normally).

Content The subject will review the development process of a project from its inception through to feasibility and go-ahead decision; detail design documentation, construction commissioning and life cycle planning; evaluate the role and function of Project Management in this process; explain the purpose and to detail the theoretical basis of various techniques used for planning and managing the building process. The subject content includes: Systems approach to project planning; basic principles and theory of systems analysis; current trends in community project planning. Overview of subject and introduction to project. Management of a
Required Reading To be advised by lecturer.


Class Contact Three hours per week for one semester.

Assessment By assignments and projects and class participation. Assignment 1, 30%; exercises and assignments, 60%; class participation, 10%. Students must attain a mark of 50% in each assessable component to pass this subject. Supplementary assessment will not be available.

VCP5620 PROJECT MANAGEMENT AND CONTRACTS

Campus Footscray Park.

Prerequisite(s) VCP5600 Project Management Fundamentals (normally).


Required Reading To be advised by lecturer.

VCP5705 PROJECT MANAGEMENT AND INFORMATION TECHNOLOGY

Campus Footscray Park.

Prerequisite(s) Nil.

Content This subject will develop students’ skills in the use of a number of software packages in the areas of General Project Management Information Systems and Specialised Project Management Information Systems. Students will gain appreciation of where computer packages can aid the project management process for feasibility and sensitivity analysis, planning and monitoring and information processing and decision support functions. The subject content includes the decision to computerise, hardware and software procurement considerations, current computer usage in this industry; overview of computer hardware and software, current computer trends; overview of Project Management Information Systems (spreadsheet/financial modelling, planning and resource control, Data Base Management Systems [DBMS], and 4th Generation Languages [4GLs]); detailed investigation of at least two software packages from item above; managing change and introduction of computers, the machine/human interface, training and installation problems and opportunities simulation modelling as an alternative to traditional, activity based management systems; trends in CAD and its impact on Project Management; quality control and Project Management Information Systems.
Recommended Reading

Class Contact
Three hours per week for one semester.

Assessment
Individual assignment, 15%; group assignment presentation, 5%; report, 40%; examination, 40%. Students must attain a mark of 50% in each assessable component to pass this subject. Supplementary assessment will not be available.

VCP5716 PROJECT DEVELOPMENT ANALYSIS
Campus: Footscray Park
Prerequisite(s): Nil.

Content

Required Reading
To be advised by lecturer.

Recommended Reading

Class Contact
Three hours per week for one semester.

Assessment
Assignments, 15%; group project, 45%; examination, 40%. Students must attain a mark of 50% in each assessable component to pass this subject. Supplementary assessment will not be available.

VCP5736 FACILITY LIFE CYCLE COSTING
Campus: Footscray Park
Prerequisite(s): Nil.

Content
A description of and the need for consideration of lifecycle costing; maintainability and efficiency. Terotechnology: why we need to use terotechnology in building industry; economic and technical factors – measures of performance; present state of knowledge. An integrated treatment of design, specification, construction use, maintenance and re-use phases for building and the effect on the life-cycle costs of the building. Discounting theory. Time value of money; discounting formulae; inflation; depreciation, taxation; before and after-tax project return; evaluation methods for economy studies. Theory of life-cycle cost optimisation. Basis of theoretical analysis of costs; total life-cost concepts; maintenance costs and capital costs; energy costs and capital costs; taxation and other factors; constraints; technical and others. Practice of life-cycle cost optimisation. Case study; practical issues; introduction; outline of factors to be considered in building obsolescence and refurbishment; market aspects; physical aspects and limitations; authorities and regulatory constraints; economic constraints. Measurement and the assessment of utilisation of resources during each phase of the building process. Design phase (including brief documentation); construction phase; functional (occupational) life; re-evaluation as to refurbish or demolish phase. Asset management using an integrated planning and budgeting approach. Need for an integrated system; provision of funds at regular intervals and/or in emergency situations; fabric of building and other services; total assets management; case-studies – latrobe system, others. Operational control. Control systems; identification of effective, preventive and remedial measures. Establishment of a maintenance policy. Preventive maintenance; corrective maintenance; records and register for maintenance as a control tool; accounting and costs records and audits. Degradation of buildings. Identification of maintenance approaches for building structure, fabric, equipment and plant; nature and causes of degradation. Information and management systems. Building services supervisory system; description Local Monitoring and Control Systems (LMCS); Central Supervisory Systems (CSS). Building engineering services information and management systems; functions; commercially available

VCP5726 PROJECT PROCUREMENT MANAGEMENT
Campus: Footscray Park
Prerequisite(s): Nil.

Content
The subject will develop an understanding of modern building technology with respect to build-ability and user-ability, by examining both construction material interaction and the effect of design criteria on the final quality of the building. The subject content provides an overview of modern technology and the problems that have arisen from it, the lessons to be learned from them and how to try and avoid similar pitfalls in the future. Examine the sources of literature and research material relating to building construction. Examine modern building materials and the problems that are being encountered in their use, including concrete, cement sheet, brickwork, etc. Modern design – current considerations and modern technology including the use of computer based design methods. Building materials and their modern usage, including aluminium, steel and plastics; looking at usage and cost considerations. Low energy buildings; solar energy. Earth covered construction, membrane structures. Modern formwork systems. Fire protection approach to building. On-site considerations. Material handling – crane, hoists, concrete control, concrete pumping and mix design criteria, safety factors and cost implications. Modern construction techniques.

Required Reading
To be advised by lecturer.

Recommended Reading

Class Contact
Three hours per week for one semester.

Assessment
Assignments, 15%; group project, 45%; examination, 40%. Students must attain a mark of 50% in each assessable component to pass this subject. Supplementary assessment will not be available.
information technology support and approaches to innovation adoption.

**Required Reading** Dependent on students area of professional expertise.

**Recommended Reading** Nil.

**Class Contact** Three hours per week for one semester or equivalent.

**Assessment** Examination (3 hour), 50%; Individual Research Project and presentation, 25%; Group Research Project and presentation, 25%.

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**VDS8120 PROJECT AND PERFORMANCE MANAGEMENT**

**Campus** Footscray Park, Hong Kong, Beijing.

**Prerequisite(s)** Nil.

**Content** Project and performance management combines the study of the planning, co-ordination and completion of complex projects with the scientific study and application of knowledge concerning the measurement of performance, its use in decision making and demonstrating accountability. The subject is designed to examine current issues associated with key facets of project and performance management and the role of the professional engineer and scientist in project and performance management. Focus will be on the legal, ethical and cost effectiveness of major technological research projects.

**Required Reading** Dependent on students area of professional expertise.

**Recommended Reading** Nil.

**Class Contact** Three hours per week for one semester or equivalent.

**Assessment** Examination (3 hour), 50%; Individual Research Project and presentation, 25%; Group Research Project and presentation, 25%.

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**VDS8200 PROFESSIONAL STUDIES 1 IN ENGINEERING & SCIENCE**

**Campus** Footscray Park, Hong Kong, Beijing.

**Prerequisite(s)** VDS8100 Foundations of Knowledge in Engineering & Science, VDS8110 Strategy and Innovation in Engineering & Science.

**Content** The subject introduces students to concepts and procedures associated with sources of knowledge in their field of expertise. In particular, it considers empiricism, which attempts to describe, explain and make predictions based on observations of the real world. It will deal with the collection of valid and appropriate data relevant to specific research questions in their field of expertise, and will explore, at an advanced level, a range of qualitative and quantitative methodologies.

**Required Reading** Dependent on students area of professional expertise.

**Recommended Reading** Nil.

**Class Contact** Three hours per week for one semester or equivalent.

**Assessment** Examination (3 hour), 50%; Individual Research Project and presentation, 25%; Group Research Project and presentation, 25%.

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**VDS8210 PROFESSIONAL STUDIES 2 IN ENGINEERING & SCIENCE**

**Campus** Footscray Park, Hong Kong, Beijing.

**Prerequisite(s)** VDS8100 Foundations of Knowledge in Engineering & Science, VDS8110 Strategy and Innovation in Engineering & Science.

**Content** The subject introduces students to concepts and procedures associated with sources of knowledge in their field of expertise. In particular, it considers empiricism, which attempts to describe, explain and make predictions based on observations of the real world. It will deal with the collection of valid and appropriate data relevant to specific research questions in their field of expertise, and will explore, at an advanced level, a range of qualitative and quantitative methodologies.

**Required Reading** Dependent on students area of professional expertise.

**Recommended Reading** Nil.

**Class Contact** Three hours per week for one semester or equivalent.

**Assessment** Examination (3 hour), 50%; Individual Research Project and presentation, 25%; Group Research Project and presentation, 25%.

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**VEA6300 MAJOR PROJECT**

**Campus** Footscray Park

**Prerequisite(s)** VEA6310, VEA6320

**Content** Each student will undertake an individual research under the guidance of an academic staff on a suitable topic, over the duration of a semester. Lectures, seminars, and regular meetings will be held collectively to expose students to research related matters such as Research Methodology, Literature Reviews, Feasibility Studies, Experiment Design, Modelling and Simulation Techniques and Tools, Results Validation and Decision Making, Report Writing, Structured Documentation, and Scientific Presentation.

**Required Reading** To be advised by the supervisor of the project.

**Recommended Reading** To be advised by the supervisor of the project.

**Class Contact** Twelve hours per week for one semester, comprising three hours per week group seminar, three hours per week (on average) individual meetings, discussions, etc. with the respective supervisors, and six hours per week independent study.

**Assessment** Regular seminar presentations (3 seminars, each of 20 min. duration) 30%; Final report (Approximately 25,000 words) 50%; Final presentation (of 40 min. duration) 20%. Final report is to be examined by an external examiner who could also be present at the final presentation.

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**VDS8220 RESEARCH PROPOSAL PREPARATION AND WRITING**

**Campus** Footscray Park, Hong Kong, Beijing.

**Prerequisite(s)** VDS8120 Project and Performance Management.

**Content** The subject introduces students to the issues involved in the production of research in technological fields. It will enhance knowledge, personal skills and competencies in conducting research in the broad engineering and science setting. Topics include: conceptualisation of research problems, theoretical formulation and contextualisation, problems and pitfalls in research development, analysis of past research, operationalisation of research problems to test hypotheses, measurement and levels of measurement, procedures for data collection, analysis and presentation, report writing and dissemination of research findings. It is an activity based subject that includes the appointment of a provisional supervisor and the production of a research proposal.

**Required Reading** Dependent on students area of professional expertise.

**Recommended Reading** Nil.

**Class Contact** Three hours per week for one semester or equivalent.

**Assessment** Presentation of the research proposal at a peer review seminar 100%.
VDS8300 ENGSCD DISSERTATION

Campus Footscray Park, Hong Kong, Beijing.
Prerequisite(s) Completion of coursework component of EngScD.
Content The uncovering of new knowledge either by the discovery of new facts, the formulation of theories or the innovative reinterpretation of known data and established ideas. The final thesis is expected to be well written and to reveal an independence of thought and approach, a deep knowledge of the field of study and to have made a significant original contribution to knowledge.
Required Reading Dependent on students area of professional expertise.
Recommended Reading Nil.
Class Contact Not applicable.
Assessment Dissertation(approximately 60,000 words), 100%.

VDS8310 RESEARCH PROJECT A

Campus Footscray Park, Hong Kong, Beijing.
Prerequisite(s) Completion of coursework component of EngScD.
Content Students under supervision are expected to analyse and report on data or information collected during the research phase, and to explore the implications of the study for theory and practice in some aspect of engineering and science.
Required Reading Dependent on students area of professional expertise.
Recommended Reading Nil.
Class Contact Not applicable.
Assessment Research Project(approximately 30,000 words), 100%.

VDS8315 RESEARCH PROJECT B

Campus Footscray Park, Hong Kong, Beijing.
Prerequisite(s) Completion of coursework component of EngScD.
Content Students under supervision are expected to analyse and report on data or information collected during the research phase, and to explore the implications of the study for theory and practice in some aspect of engineering and science.
Required Reading Dependent on students area of professional expertise.
Recommended Reading Nil.
Class Contact Not applicable.
Assessment Research Project(approximately 30,000 words), 100%.

VDS8316 RESEARCH PROJECT C

Campus Footscray Park, Hong Kong, Beijing.
Prerequisite(s) Completion of coursework component of EngScD.
Content Students under supervision are expected to analyse and report on data or information collected during the research phase, and to explore the implications of the study for theory and practice in some aspect of engineering and science.
Required Reading Dependent on students area of professional expertise.
Recommended Reading Nil.
Class Contact Not applicable.
Assessment Research Project(approximately 25,000 words), 100%.

VDS8320 RESEARCH PAPER A

Campus Footscray Park, Hong Kong, Beijing.
Prerequisite(s) Completion of coursework component of EngScD.
Content The paper will report an independently conducted research that demonstrates the students ability to clearly define and conclude an engineering and science problem.
Required Reading Dependent on students area of professional expertise.
Recommended Reading Nil.
Class Contact Not applicable.
Assessment Research Paper (approximately 15,000 words), 100%.

VDS8325 RESEARCH PAPER B

Campus Footscray Park, Hong Kong, Beijing.
Prerequisite(s) Completion of coursework component of EngScD.
Content The paper will report an independently conducted research that demonstrates the students ability to clearly define and conclude an engineering and science problem.
Required Reading Dependent on students area of professional expertise.
Recommended Reading Nil.
Class Contact Not applicable.
Assessment Research Paper (approximately 15,000 words), 100%.

VEA6310 LINEAR SYSTEMS AND CONTROL

Campus Footscray Park.
Prerequisite(s) A knowledge of linear control systems covered in a standard B.Eng. course.
Class Contact Three hours per week for one semester. This includes two hours of lecture per week, one hour of tutorial and one hour of laboratory for every two weeks.
Assessment Two Class Tests (1 hr each) 20%; Final Examination (3 hrs) 80%. A pass in each component is necessary for a subject pass.

VEA6311 MODELLING AND COMPUTER CONTROL

Campus Footscray Park.
Prerequisite(s) VEA6310 or equivalent subjects.
VEA6320 OPTIMAL FILTERING AND PARAMETER ESTIMATION

Campus Footscray Park
Prerequisite(s) A knowledge of linear control systems covered in a standard B.Eng. course.
Recommended Reading Anderson B.D.O. and Moore, J. B., 1979, Optimal Filtering, Prentice Hall, New Jersey.
Class Contact Three hours per week for one semester. This includes two hours of lecture per week, one hour of tutorial and one hour of laboratory for every two weeks.
Assessment Two Class Tests (1 hr each) 20%; Final Examination (3 hrs) 80%. A pass in each component is necessary for a subject pass.

VEA6321 FUZZY AND NEURAL CONTROL

Campus Footscray Park
Prerequisite(s) Nil
Co-requisite Nil
Class Contact Three hours per week for one semester. This includes two hours of lecture per week, one hour of tutorial and one hour of laboratory for every two weeks.
Assessment To be advised by lecturer.

VEA6331 ROBOTICS AND PROGRAMMED CONTROL

Campus Footscray Park
Prerequisite(s) Completed an undergraduate degree in Engineering or Science
Class Contact Three hours per week for one semester. This includes two hours of lecture per week, one hour of tutorial and one hour of laboratory for every two weeks.
Assessment Assignments and laboratory exercises: 60%; Examination: 40%. A pass in each component of assessment is required for a subject pass.

VEA6332 ELECTRONIC CONTROL OF MOTORS

Campus Footscray Park
Prerequisite(s) Nil
Co-requisite Nil
Class Contact Three hours per week for one semester. This includes two hours of lecture per week, one hour of tutorial and one hour of laboratory for every two weeks.
Assessment To be advised by lecturer.
VEA6341 MEASUREMENT TECHNOLOGY

Campus Footscray Park

Prerequisite(s) Nil


Required Reading To be advised by the lecturer.


Class Contact Three hours per week for one semester. This includes two hours of lecture per week, one hour of tutorial and one hour of laboratory for every two weeks.

Assessment Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.

VEA6350 MINOR PROJECT

Campus Footscray Park

Prerequisite(s) VEA6310, VEA6320

Content Each student will undertake an individual research on a topic allocated to him or her under the supervision of an academic staff over the duration of a semester. Regular meetings will be held between the students and their supervisors in the form of seminars where students will report their progress in the form of formal presentations. In addition, informal meetings between students and their supervisors will take place as and when required. In the process, the student will be exposed to research related matters such as Research Methodology, Literature Reviews, Feasibility Studies, Experiment Design, Modelling and Simulation Techniques and Tools, Results Analysis and Validation, Report Documentation and Presentation.

Required Reading To be advised by the supervisor of the project.

Recommended Reading To be advised by the supervisor of the project.

Class Contact Six hours per week for one semester, comprising three hours per week group seminar, and three hours per week (on average) individual meetings, discussions, etc. with respective supervisors.

Assessment Regular seminar presentations (3 seminars, each of 20 min. duration) 30%; Final report (Approximately 12,000 words) 50%; Final presentation (of 30 min. duration) 20%.

VEC6142 MANAGING SOFTWARE PROJECTS

Campus Footscray Park

Prerequisite(s) VEG5011 Software Engineering.

Content The subject will develop and improve the skills required to successfully plan and manage software development efforts. The subject content includes: the role of specification in the product life cycle; systems analysis and design; feasibility study and development cycle; the applicability of DP techniques to technical program management; defining software requirements, documentation; preparation of good project plans, size and function point metrics and their use in estimation of time and costs; implementing management controls for design and integration; the use of standard project management techniques and software packages; team working, codes of practice, whole life costing, system support plans; hardware/software integration and testing, product support and maintenance, controlling changes to software and documentation; control of the programming support environment. The assignment and laboratory work consists of design, analysis and management of a large scale software project.

Required Reading To be advised by lecturer.

Class Contact Three hours per week for one semester comprising approximately 65% lectures/tutorials and 35% laboratory.

Assessment Examination, 50%; assignments and project work, 50%.

VEC6152 APPLIED KNOWLEDGE SYSTEMS

Campus Footscray Park

Prerequisite(s) Nil

Content The subject provides an introduction to Knowledge Based Systems. It gives an overview of expert systems, neural networks, knowledge programming and natural language systems and examines software associated with these. The subject will familiarise the students with a number of techniques for applying knowledge based systems to real world problems in the control, monitoring and planning domains, including how to select appropriate tools to analyse problems.


Class Contact Three hours per week for one semester. This includes two hours of lecture per week, one hour of tutorial and one hour of laboratory for every two weeks.

Assessment Tests/Assignments: 35%; Examination: 65%. A pass in each component of assessment is required for a subject pass.

VEE6000 RESEARCH PROJECT

Campus Footscray Park

Prerequisite(s) Completion of at least eight units of the course.

Content Each student will undertake an in-depth investigation of a topic allocated in the student’s area of specialisation, over the duration of a semester, under the guidance of an academic supervisor. The student will produce a report and present it to an audience as a publication. In the process the student will be exposed to research related matters such as research methodology, literature surveys, problem definition, feasibility studies, experiment design, modelling and simulation, analysis of results, formulation of conclusions, documentation, and presentation.

Required Reading To be advised by the supervisor of the project.

Recommended Reading To be advised by the supervisor of the project.
VEH6001 HDL AND HIGH LEVEL SYNTHESIS

Campus: Chipskills Partner Universities

Prerequisite(s): Completed Digital Systems at undergraduate level or equivalent.


Class Contact: Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises and project.

Assessment: Assignment and laboratory exercises, 20%; project, 50%; and final examination, 30%.

VEH6002 INTEGRATED CIRCUIT DESIGN

Campus: Chipskills Partner Universities

Prerequisite(s): Completed Digital Systems at undergraduate level or equivalent.

Content: Overview of MOS and sub-micron technology, scaling and signal integrity, IC design techniques. CMOS cell design: device-level design constraints, gate design, pass transistor circuits, sequential circuits, mask level design. Layout considerations, design rules and mask level design. Circuit optimisation techniques. ASIC and custom design, synchronous system design. Timing issues in VLSI circuit design. Design of VLSI system sub-systems: Arithmetic and logic processing elements, adders, counters, I/Os, buffers, data path design and layout, etc. Chip floor planning. Basic analog building blocks. Design trade-offs-cost, power and performance. Testability and yield.


Class Contact: Four hours per week for one semester comprising one hour per week lectures and three hours per week of laboratory exercises and project.

Assessment: Assignment and laboratory exercises, 30%; project, 50%; and final examination, 20%.
**VEH6003 TOOLS AND DESIGN METHODOLOGY**

**Campus** Chipskills Partner Universities

**Prerequisite(s)** Completed Digital Systems at undergraduate level or equivalent.


**Required Reading** Current available text book: students to be advised.


**Class Contact** Four hours per week for one semester comprising one hour per week lectures and three hours per week of laboratory/workshop and project.

**Assessment** Assignment and laboratory exercises, 60%; research project, 40%.

**VEH6004 DIGITAL SYSTEM DESIGN**

**Campus** Chipskills Partner Universities

**Prerequisite(s)** Completed JRM6001 or equivalent.


**Required Reading** Current available text book – Student to be advised.


**Class Contact** Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises.

**Assessment** Assignment and laboratory exercises, 30%; project, 40%; and final examination, 30%.

**VEH6006 EMERGING TOPICS IN IC DESIGN**

**Campus** Chipskills Partner Universities

**Prerequisite(s)** Nil.

**Content** New technologies such as: Silicon carbide high-power devices, Quantum based devices, quantum wells and quantum dots Nonometer MOSFETs, Wide bandgap materials and devices, Plasma-wave electronics, Ferroelectric devices. Overview of new process technologies. Deep sub-micron technology and noise. Ultra-high-speed devices, including microwave and optical devices. New Systems-Level Architectures, such as: Nanowire arrays, Neuromorphic architectures, Reconfigurable architectures, Wafer-scale systems, Memory systems. New EDA tools and future technology projections. EMC: regulations, measurement and testing, Design issues related to EMC.


**Class Contact** Four hours per week for one semester comprising two hours per week lectures and two hours per week of workshops and seminars.

**Assessment** Assignments, 30%; seminars, 40%; and research project, 30%.

**VEH6007 ADVANCED VLSI DESIGN**

**Campus** Chipskills Partner Universities

**Prerequisite(s)** VEH6002 or equivalent.


**Class Contact** Four hours per week for one semester comprising one hour per week lectures and three hours per week of laboratory exercises and project.

**Assessment** Assignment and laboratory exercises, 30%; project, 50%; and final examination, 20%.

**VEH6008 VLSI DIGITAL SIGNAL PROCESSING SYSTEMS**

**Campus** Chipskills Partner Universities

**Prerequisite(s)** Completed DSP course at undergraduate level.

**Content** Overview of DSP: FFT, DFT, Z-transform and sampling theory. FIR and IIR filter design and implementation. Interpolation, decimation and multi-rate systems. Adaptive filtering and applications. DSP software building blocks, nonlinearity and choice of sampling rate. DSP hardware: architecture, processing blocks (multipliers, ALU, MAC, barrel shifters). Pipelining and parallel processing, power consumption and reduction. Folding and unfolding applications: sampling period reduction, designing digital serial hardware, time-multiplexed design. Systolic array design. Algorithmic strength reduction. Advanced DSP software and hardware. DSP system design.


**Class Contact** Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises and project.

**Assessment** Assignment and laboratory exercises, 30%; project, 40%; and final examination, 30%.
VEH6009 RELIABILITY AND TESTABILITY IN IC DESIGN

Campus Chipskills Partner Universities
Prerequisite(s) VEH6001, EEH6002 and VEH6003 or equivalents.
Content Reliability: parallel and serial reliability, failure rates. Reliability as affected by smaller dimensions and faster devices, thermal considerations. Redundancy and fault tolerance. Design for device reliability. Functional and formal verification and fault modelling. Hardware/software co-design, co-verification and co-simulation. Timing and power analysis. Design for testability and ATPG and fault coverage tools. Layout issues for testability. Testing methodologies (In-circuit, Built-in self test), Boundary Scan Testing. Memory testing, BIST of RAMs, RAM interconnection testing, Scan based testing of multimegabit memories, external and internal testing of megabit DRAMs. Comprehensive testing of multilayer interconnection networks. Embedded system testing. Board-level interconnect testing. Test bench design.
Class Contact Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises.
Assessment Assignment and laboratory exercises, 60%; and final examination, 40%.

VEH6010 INTRODUCTION TO MICROSYSTEM TECHNOLOGY

Campus Chipskills Partner Universities
Prerequisite(s) Nil.
Class Contact Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises.
Assessment Assignments, 20%; laboratory exercises, 30%; project, 30 and final examination, 20%.

VEH6011 INTRODUCTION TO SEMICONDUCTOR DEVICE FABRICATION

Campus Chipskills Partner Universities
Prerequisite(s) Nil.
Content Fundamental principles of fabrication processes, physical and chemical models for crystal growth, oxidation, ion implantation, etching, deposition, lithography and metallisation. Emphasis is on practical aspects of silicon device fabrication, including wafer cleaning, photolithography, etching, oxidation, diffusion, ion implantation, chemical vapour deposition, physical sputtering and wafer testing. Imperfections in semiconductors, crystal growth, solid solubility, alloying and diffusion, ion implantation, oxide masking, and epitaxy. Practical and fundamental limits to the evolution of the technology of MOS and bipolar devices. How are integrated circuits fabricated and what future changes are likely? The implications for device performance caused by material properties and fabrication techniques. Fabrication techniques for bipolar and MOS-devices, and the electrical performance of devices based on these techniques. Comparison of fabrication technologies for silicon and gallium arsenide devices. Processes and fabrication equipment to be studied will include oxidation/diffusion, CVD reactors, photolithography, plasma etching, vacuum evaporator, ion implantation, etc. Introduction to computer modelling of processing steps such as etching, lithography, diffusion, implantation (eg SUPREME).
Class Contact Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises.
Assessment Assignments, 20%; laboratory exercises, 30%; and final examination, 50%.

VEH6012 SEMICONDUCTOR DEVICE PHYSICS

Campus Chipskills Partner Universities
Prerequisite(s) Nil.
Recommended Reading Sze, S., 1997, Modern Semiconductor Device Physics, J. Wiley.
Class Contact Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises.
Assessment Assignments, 20%; laboratory exercises, 30%; and final examination, 50%.

VEH6013 PROJECT MANAGEMENT AND ENTREPRENEURSHIP

Campus Chipskills Partner Universities
Prerequisite(s) Nil.
Required Reading Current available text book – students to be advised. Appropriate Journal papers.
Recommended Reading  
Yuzuruha, T., 1999, How to succeed as an Engineer: A Practical Guide to Enhance Your Career, IEEE.

Class Contact  
Four hours per week for one semester.
Assessment  
Assignments, 20%; seminar presentations, 10%; project, 30%; and final examination, 40%.

VEH6014 RF DESIGN  
Campus  
Chipskills Partner Universities
Prerequisite(s)  
Completed Analog Electronics at undergraduate level.

Content  
Basic concepts of wireless communication systems design. Transceiver architectures. VLSI design issues and layout techniques in wireless transceiver design. Radio circuits, LNAs, oscillators, mixers, limiters, phase detectors, frequency synthesizers, PLLs and power amplifiers. Low voltage low power design techniques and design flow for analog and mixed signal circuits and systems. OpAmps, comparators, A-to-D and D-to-A conversion circuits. Noise analysis and design tradeoffs – cost, power and performance. Students will develop hands-on experience in design, simulation, verification and implementation using industry standard EDA tools.

Required Reading  

Recommended Reading  

Class Contact  
Four hours per week for one semester comprising two hours per week lectures and two hours per week of laboratory exercises and project.
Assessment  
Assignment and laboratory exercises, 30%; project, 50%; and final examination, 20%.

VEH6016 VERILOG HDL  
Campus  
Footscray Park
Prerequisite(s)  
Completed Digital Systems at undergraduate level or equivalent.

Content  
The role of HDL in design, Top-down introduction to Verilog, Verilog for description of logic circuits, Verilog language constructs, behavioural modelling, logic level modelling, concurrent process and switch level modelling. Timing analysis, synthesis and test benches.

Required Reading  

Recommended Reading  

Class Contact  
Four hours per week for one semester, comprising of two hour lecture and two hours of tutorial/labouratory and project work.
Assessment  
Assignments and laboratory exercises, 20%; project, 30%; final examination, 50%.

VEH6017 DIGITAL SYSTEM DESIGN WITH VERILOG  
Campus  
Footscray Park
Prerequisite(s)  
Completed EEE6001 or equivalent

Content  
Introduction to Verilog and digital systems design for VLSI, combinational and sequential circuits, design verification, algorithmic state machine design, finite state machine specifications in Verilog, hierarchical modelling concepts, synchronous and asynchronous systems, pipelined architectures, processor architectures, clocks timing and clock distribution, synthesis and advanced concepts in brief.

Required Reading  

Recommended Reading  

Class Contact  
Four hours per week for one semester, comprising of two hour lecture and two hours of tutorial/laboratory and project work.
Assessment  
Assignments and laboratory exercises, 35%; project, 33%; final examination, 30%.

VEH6018 ANALOG & MIXED SIGNAL DESIGN  
Campus  
Footscray Park
Co-requisite(s)  
EEH6003 – EDA Tools & Design Methodology and studied Analog electronics at undergraduate level.

Content  
The design of CMOS analog and mixed-signal integrated circuits is covered. Design concepts of high speed low power amplifiers, filters, sample and hold circuits, comparators, digital to analog and analog to digital converters are fully analysed. Noise and performance analysis and design tradeoffs – cost, power and performance. Students will develop hands-on experience in design, simulation, verification and implementation using industry standard EDA tools.

Required Reading  

Recommended Reading  

Class Contact  
Four hours per week for one semester, comprising of one hour lecture and three hours of laboratory and project work.
Assessment  
Assignments and laboratory exercises, 20%; project, 50%; final examination, 30%.

VEH6020 MINOR PROJECT  
Campus  
Chipskills Partner Universities
Prerequisite(s)  
Completed EEE6001, EEE6002, EEE6003 or equivalent.

Content  
It is expected that the majority of industry-based students will undertake projects as part of their normal employment, where relevant opportunities exist and suitable resources and supervision can be guaranteed. A project can be structured to be the equivalent of two units of study. Projects would be expected to demonstrate a good working knowledge in chip design and implementation. Students must demonstrate their ability to integrate and draw upon their coursework studies relevant to the project. A dissertation of no less than 10000 words must be submitted and will be examined by one examiner selected by the examining panel for this module. Commercial in-confidence programs can be undertaken, with appropriate restrictions on publication and choice of examiners. Intellectual property of projects initiated by a company and undertaken in that company will remain with the company. All other projects will be subject to the Intellectual Property policy of the relevant university partner.

Required Reading  
Current available text – students to be advised. Appropriate IEEE/IEE Journal materials.

Recommended Reading  

Class Contact Eight hours per week for one semester.
Assessment Assessment will be based on project progress and demonstration, 20%; Final project demo 30%; final report, 40% and an oral poster presentation, 10%.

VEH6030 MAJOR PROJECT

Campus Chipskills Partner Universities
Prerequisite(s) Completed EEH6001, EEH6002 and EEH6003 or equivalents.
Content It is expected that the majority of industry-based students will undertake projects as part of their normal employment, where relevant opportunities exist and suitable resources and supervision can be guaranteed. Collaboration with international partners will also be encouraged. A project can be structured to be the equivalent of four units of study. Projects would be expected to demonstrate mastery in chip design and implementation at a level considered no less than that of an experienced practitioner in the field. Students must demonstrate their ability to integrate and draw upon their coursework studies relevant to the project. A dissertation of no less than 15000 words must be submitted and will be examined by two examiners selected by the examining panel for this module. Commercial in-confidence programs can be undertaken, with appropriate restrictions on publication and choice of examiners. Intellectual property of projects initiated by a company and undertaken in that company will remain with the company. All other projects will be subject to the Intellectual Property policy of the relevant university partner.
Required Reading Current available text – students to be advised. Appropriate IEEE/IEE Journal materials.
Reuse with VHDL, Kluwer.
Class Contact Sixteen hours per week for one semester.
Assessment Assessment will be based on project progress and demonstration, 20%; Final project demo 30%; final report, 40% and an oral poster presentation, 10%.

VEH6101 ASIC DESIGN

Campus Footscray Park
Prerequisite(s) Nil.
Co-requisites VEH6151 VHDL and High-Level Synthesis or equivalent.
Required Reading Selected papers from IEEE/IEE Journal. To be advised by the lecturer.
Class Contact Four hours per week for one semester comprising one hour per week of lecture and three hours per week of tutorial/laboratory.
Assessment Assignments 20%; Research Project 80%.

VEH6102 CUSTOM IC DESIGN B

Campus Footscray Park
Prerequisite(s) VEH6121 Basic IC Design or equivalent
Required Reading Selected papers from IEEE/IEE Journal. To be advised by the lecturer.
Class Contact Four hours per week for one semester comprising one hour per week of lecture and three hours per week of project.
Assessment Assignments, 20%; Project, 80%.

VEH6111 DIGITAL CIRCUIT DESIGN

Campus Footscray Park
Prerequisite(s) Completed Digital Design at undergraduate level or equivalent.
Class Contact Four hours per week for one semester comprising two hours per week of lecture and two hours per week of tutorial/laboratory.
Assessment Assignments and laboratory exercises 30%, Project 40%; final examination 30%.

VEH6121 BASIC IC DESIGN/DEVICES

Campus Footscray Park
Prerequisite(s) Completed Digital Design at undergraduate level or equivalent.
Content Bipolar and CMOS structures. Logic design: Introduction to CMOS circuit design: Switch level analysis of NMOS and CMOS structures, CMOS logic gates using static and dynamic logic, Precharging techniques, latch up, pass transistor/transmission gate logic. PLA logic: static and dynamic design. Memory: Design of subsystems using sequential logic.
Class Contact Four hours per week for one semester comprising two hours per week of lecture and two hours per week of tutorial/laboratory.
Assessment Test, assignments and laboratory exercises 40%, final examination 60%.

VEH6122 CUSTOM IC DESIGN A
Campus Footscray Park
Prerequisite(s) VEH6121 Basic IC Design/Devices or equivalent
Content CMOS cell design: device-level design constraints, Circuit optimisation techniques, gate matrix method. Review of tools for low-level cell design: Mentor Graphics circuit design and verification tools, HSPICE and PSPICE simulation tools. Basic analog building blocks. Timing issues in VLSI circuit design. Design of VLSI system sub-systems: Arithmetic and logic processing elements,adders, counters, etc, data path design and layout. Chip floorplanning.
Required Reading Gopalan, K., 1996, Introduction to Digital Microelectronic Circuits, IRWIN.
Class Contact Four hours per week for one semester comprising one hour per week of lecture and three hours per week of research project.
Assessment Assignments, 40%; project, 60%.

VEH6132 INTEGRATED CIRCUIT TESTABILITY
Campus Footscray Park
Prerequisite(s) VEH6001, VEH6002 and VEH6003 or equivalents.
Recommended Reading Pucknell, D.A. and Eshraghian, K., 1994, Basic VLSI Design System and Circuits, Prentice Hall.
Class Contact Four hours per week for one semester comprising two hours per week of lecture and two hours per week of tutorial/laboratory.
Assessment Assignments and laboratory exercises 60%, final examination 40%.

VEH6142 EMERGING TECHNOLOGIES
Campus Footscray Park
Prerequisite(s) Nil
Required Reading Selected papers from IEEE/IEE Journals. To be advised by the lecturer.

Class Contact Four hours per week for one semester comprising of one hour per week of lecture and three hours per week of research project.
Assessment Assignments, 40%; final project, 60%.

VEH6151 VHDL AND HIGH LEVEL SYNTHESIS
Campus Footscray Park
Prerequisite(s) Nil.
Class Contact Four hours per week for one semester comprising two hours per week of lecture and two hour per week of tutorial/laboratory.
Assessment Assignment & laboratory exercises 20%, project 50%; final examination, 30%.

VEH6152 ADVANCED MICROPROCESSORS
Campus Footscray Park
Prerequisite(s) VEH6111 Digital Circuit Design
Content 68020 programming model, data organisation, addressing modes and instructions sets. Exception processing, stack frames, parameter passing and procedure calls. Software development for embedded systems. External bus behaviour and design of decoders, Stack and BERR circuitry using PLDs. Interfacing memory and peripheral devices. Embedded microcontroller devices – architecture, features, peripherals and programming. Coprocessor interface and memory management.
Required Reading Selected papers from IEEE/IEE Journals. To be advised by the lecturer.
Class Contact Four hours per week for one semester comprising two hours per week of lecture and two hours per week of tutorial/laboratory.
Assessment Test, assignments and laboratory exercises 40%, final examination 60%.

VET6500 MAJOR PROJECT
Campus Footscray Park
Prerequisite(s) VET6510, VET6520
Content Each student will undertake an individual research under the guidance of an academic staff on a suitable topic, over the duration of a semester. Lectures, seminars, and regular meetings will be held collectively to expose students to research related matters such as Research Methodology, Literature Reviews, Feasibility Studies, Experiment Design, Modelling and Simulation Techniques and Tools, Results Validation and Decision Making, Report Writing, Structured Documentation, and Scientific Presentation.
Required Reading To be advised by the supervisor of the project.
Recommended Reading
To be advised by the supervisor of the project.

Class Contact
Twelve hours per week for one semester, comprising three hours per week group seminar, three hours per week (on average) individual meetings, discussions, etc. with the respective supervisor, and six hours per week independent study including laboratory and library activity.

Assessment
Regular seminar presentations (3 seminars, each of 20 min. duration) 30%; Final report (Approximately 25,000 words) 50%; Final presentation (of duration 40 min.) 20%; Final report is to be examined by an external examiner (who could also be present at the final presentation).

VET6501 COMMUNICATION SYSTEM MODELING AND SIMULATION 1

Campus
Footscray Park

Prerequisite(s)
Nil

Content

Required Reading
To be advised by lecturer.

Recommended Reading
To be advised by lecturer.

Class Contact
Three hours per week for one semester.

Assessment
Preliminary assignments, 40%; final assignment, 60%.

VET6502 COMMUNICATION SYSTEM MODELING AND SIMULATION 2

Campus
Footscray Park

Prerequisite(s)
Nil

Content
Introduction to OPNET and other industry standard simulation tools and their application in telecommunication systems modelling and simulation.

Required Reading
To be advised by lecturer.

Recommended Reading
To be advised by lecturer.

Class Contact
Three hours per week for one semester.

Assessment
Preliminary assignments, 40%; final assignment, 60%.

VET6510 COMMUNICATION THEORY

Campus
Footscray Park

Prerequisite(s)
Nil

Content

Required Reading

Recommended Reading

Class Contact
Three hours per week, comprising lectures, tutorials and seminars.

Assessment
Class test (Two Hours) 20%; Assignment (report not exceeding 5000 words) 20%; Final examination (Three Hours) 60%.

VET6511 DATA NETWORK ANALYSIS AND DESIGN

Campus
Footscray Park

Prerequisite(s)
Nil

Content

Required Reading

Recommended Reading

Class Contact
Three hours per week for one semester comprising two hour lecture and one hour tutorial/labatory.

Assessment
Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.

VET6512 INTELLIGENT NETWORKS AND NETWORK MANAGEMENT

Campus
Footscray Park

Prerequisite(s)
Nil

Content

Required Reading

Recommended Reading

Class Contact
Three hours per week for one semester comprising two hour lecture and one hour tutorial/labatory.

Assessment
Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.

VET6520 DIGITAL COMMUNICATION PRINCIPLES

Campus
Footscray Park

Prerequisite(s)
Nil

Content

Multi-user Communications. Direct sequence CDMA. Frequency hoping CDMA. RAKE receivers.


Class Contact Three hours per week, comprising lectures, tutorials and seminars.

Assessment Class test [Two Hours] 20%; Assignment (report not exceeding 5000 words) 20%; Final examination (Three Hours) 60%.

VET6521 DIGITAL SWITCHING AND SIGNALLING SYSTEMS
Campus Footscray Park
Prerequisite(s) Nil


Required Reading To be advised by the lecturer.

Recommended Reading To be advised by the lecturer.

Class Contact Three hours per week for one semester comprising two lecture hours and one hour tutorial/laboratory.

Assessment Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.

VET6522 TELECOMMUNICATION TARIFF STRUCTURES AND TELETRAFFIC ENGINEERING
Campus Footscray Park
Prerequisite(s) Nil


Required Reading To be advised by the lecturer.


Class Contact Three hours per week for one semester comprising two hour lecture and one hour tutorial/laboratory.

Assessment Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.

VET6531 WIRELESS COMMUNICATION SUBSYSTEMS
Campus Footscray Park
Prerequisite(s) Nil

Content This subject will provide a theoretical and practical understanding of wireless communication systems and the subsystems involved in them. It provides an overview of existing wireless systems with special reference to its hardware implementation. Subject content will include the following: Propagation modelling at UHF. Path loss, slow fading and fast fading. Okumura’s model. Delay spread, coherence bandwidth, and level crossing rate. Multipath propagation. Interference cancellation.


Required Reading To be advised by the lecturer.


Class Contact Three hours per week for one semester comprising two hour lecture and one hour tutorial/laboratory.

Assessment Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.

VET6532 MICROWAVE AND SATELLITE COMMUNICATION SYSTEMS
Campus Footscray Park
Prerequisite(s) Nil


Class Contact Three hours per week for one semester comprising two hour lecture and one hour tutorial/laboratory.

Assessment Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.
VET6541 MULTIMEDIA AND INTERNET TECHNOLOGY

Campus: Footscray Park
Prerequisite(s): Nil
Co-requisite: Nil
Class Contact: Three hours per week for one semester comprising two hour lecture and one hour tutorial/laboratory.
Assessment: Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.

VET6542 MOBILE AND PERSONAL COMMUNICATION SYSTEMS

Campus: Footscray Park
Prerequisite(s): Nil
Class Contact: Three hours per week for one semester comprising two hour lecture and one hour tutorial/laboratory.
Assessment: Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.

VET6550 MINOR PROJECT

Campus: Footscray Park
Prerequisite(s): VET6510, VET6520
Co-requisite: Nil
Content: Each student will undertake an individual research on a topic allocated to him or her under the supervision of an academic staff over the duration of a semester. Regular meetings will be held between the students and their supervisors in the form of seminars where students will report their progress in the form of formal presentations. In addition, informal meetings between students and their supervisors will take place as and when required. In the process, the student will be exposed to research related matters such as Research Methodology, Literature Reviews, Feasibility Studies, Experiment Design, Modelling and Simulation Techniques and Tools, Results Analysis and Validation, Report Documentation and Presentation.
Required Reading: To be advised by the supervisor of the project.
Recommended Reading: To be advised by the supervisor of the project.
Class Contact: Six hours per week for one semester, comprising three hours per week group seminar, and three hours per week (on average) individual meetings, discussions, etc. with respective supervisors.
Assessment: Regular seminar presentations (3 seminars, each of 20 min duration), 30%. Final report (Approximately 12,000 words) 50%. Final presentation (of 30 min duration), 20%.

VET6551 MICROWAVE ELECTRONIC CIRCUIT DESIGN

Campus: Footscray Park
Prerequisite(s): Nil
Co-requisite: Nil
Content: This subject will provide an introduction to microwave electronic circuit design based around the 'Microstrip' transmission line structure. Students will be given small design projects to complete operating at the frequencies relevant to mobile communications (i.e. 0.9 to 3 Ghz). Extensive use will be made of Agilent's simulation and design package, ADS and other software packages in this course. Subject content: A review of basic transmission line theory. A review of microwave transmission structures. A discussion of corrections for microstrip discontinuities. A review of the Smith Chart. Consideration of matching requirements for small signal amplifiers. A review of matching techniques. Bias circuit design and power amplifier design. Passive RF Components.
Required Reading: Gonzalez, G., 1984, Microwave Transistor Amplifiers – Analysis and Design, Prentice-Hall.
Recommended Reading: Fooks, E.H. and Zakerievius, A., Microwave Engineering Using Microstrip Circuits, Prentice Hall.
Class Contact: Three hours per week for one semester comprising one hour lecture and two hours tutorial/laboratory.
Assessment: Assignments: 60%; Examination/test: 40%. A pass in each component of assessment is required for a subject pass.

VET6552 COMPUTER NETWORKS AND NETWORKING SOFTWARE

Campus: Footscray Park
Prerequisite(s): Nil
Co-requisite: Nil
Recommended Reading: Freer, J., Communications and Networks, 2nd edn, IEEE Press. Stevens, W.R., TCP/IP Illustrated; Vol 1,2 and 3, Addison Wesley.
Class Contact: Three hours per week for one semester comprising two hour lecture and one hour tutorial/laboratory.
VET6561 LOCAL AREA AND BROADBAND NETWORKS

Campus Footscray Park

Prerequisite(s) Nil

Co-requisite Nil


Required Reading To be advised by the lecturer.


Class Contact Three hours per week for one semester comprising two hour lecture and one hour tutorial/laboratory.

Assessment Tests/Assignments: 30%; Examination: 70%. A pass in each component of assessment is required for a subject pass.

VET6562 DIGITAL SIGNAL PROCESSING

Campus Footscray Park

Prerequisite(s) Nil

Co-requisite Nil


Required Reading To be advised by lecturer.

Recommended Reading To be advised by lecturer.

Class Contact Three hours per week for one semester comprising two hour lecture and one hour tutorial/laboratory.

Assessment Tests/Assignments: 40%; Examination: 60%. A pass in each component of assessment is required for a subject pass.

VME5782 SPECIALIST ELECTIVE

Campus Footscray Park

Prerequisite(s) VME5771 Research Techniques.

Content One of the following topics, subject to staff availability: VME5782 Composite materials design, VME5882 Flow measurement techniques, VMS5772 Optimization, WVM5772 Transportation and packaging dynamics.

Required Reading As recommended by the lecturers.

Recommended Reading As recommended by the lecturers.

Class Contact Three hours weekly comprising of lectures, tutorials and laboratory for 12 weeks.

Assessment As specified by the Lecturer of the Specialist Elective chosen.

VMP5872 RESEARCH PROJECT

Campus Footscray Park

Prerequisite(s) VMP5771 Research Techniques.

Content Methods of formulating research problem, literature survey. Techniques of poster presentation, final report, research seminar. Carrying out a research project of choice: acquiring data,
processing data. Presenting findings in seminar, by poster presentation and writing research report.


**Class Contact** Lectures, tutorials and project presentation in the form of poster and seminars, three hours per week for 12 weeks.

**Assessment** Project presentation, 40% (Project proposal 10%, poster presentation 10%, seminar presentation 20%); Final Report, 60%. Students must attain a mark of at least 50% in each component to pass this subject.

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**VMR5781 MINOR THESIS**

**Campus** Footscray Park

**Prerequisite(s)** Research Project

**Content** Carrying out research under supervision for a minor thesis and writing the thesis.

**Required Reading** As recommended by the supervisor.

**Recommended Reading** As recommended by the supervisor.

**Class Contact** As arranged and recommended by the supervisor.

**Assessment** Based entirely on the thesis by two examiners, at least one is external to the university.

**VMV5772 optimization**

**Campus** Footscray Park

**Prerequisite(s)** VMC5771 Computer Aided Engineering.


**Class Contact** Three hours per week comprising of two lectures and one tutorial for 12 weeks.

**Assessment** Three assignments, 60% (each of 20%, on implementing optimisation algorithms to solve optimisation problems with a report of 4000-5000 words); one three-hour final examination, 40%. Students must attain a mark of at least 50% in each component to pass this subject.

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**VMV5882 COMPUTATIONAL FLUID DYNAMICS**

**Campus** Footscray Park

**Prerequisite(s)** Nil.

**Content** The numerical schemes used for CFD, their accuracy and stability limit. Turbulence models: eddy viscosity concept, k-ε model, RNG models; turbulence models near the wall. Boundary and initial conditions specification, wall boundary, open boundary, inlet and exit; How to divide the computation domain into small regions; Grid generation and near wall requirement; CFD simulations for smoke spread during a fire in building, air-conditioning system, air flow inside an engine manifold and exhaust system. Basic concept of LES and DNS, their applications and limitations.


**Class Contact** Three hours of lectures, tutorials, and computer-based laboratory per week for 12 weeks.

**Assessment** Two assignments, 20% (each of 10%, 2500-5000 words); one one-hour test, 10%; laboratory, 20%; final three-hour examination, 50%. Students must attain a mark of at least 50% in each component to pass this subject.
VMW5682 MANUFACTURING MATERIALS
Campus Footscray Park
Prerequisite(s) Nil.
Content Advanced topics in the following areas: Fabrication processes in casting, cutting and solid shaping and their relationship to polymeric, ceramic and metallic materials. Selection of materials for clean manufacturing.
Class Contact Lectures, tutorials and seminars, three hours/week for 12 weeks.
Assessment Three assignments, 60% each of 4000-5,000 words; two two-hour tests, 40%.

VMW5771 RESEARCH TECHNIQUES
Campus Footscray Park
Prerequisite(s) Nil.
Content An overview of the history of engineering and scientific research. An introduction to the philosophy of science and the ideas of Popper, Kuhn, Feyerabend and others. Design and Analysis of Experiment. Error and uncertainty. Statistical Data Analysis. Taguchi method for design and experiments.
Class Contact Three hours per week of lectures, tutorials and laboratory-based assignments for twelve weeks.
Assessment Four assignments, 40% (each of 10%, of 2500-5000 words); final three-hour examination, 60%. Students must attain a mark of at least 50% in each component to pass this subject.

VMW5682 EXPERIMENTAL TECHNIQUES AND SIGNAL PROCESSING
Campus Footscray Park
Prerequisite(s) Nil.
Content Engineering measurement theory and fundamentals; Instrumentation for mechanical processes; Signal conditioning and dynamic response of measurement systems; Data acquisition systems; Frequency filters. Interfacing with computers. Signal theory; Time domain analysis; Synchronous averaging, probability distribution estimates and statistical parameters; Frequency domain analysis: Fast Fourier Transform [FFT]; Shock Response Spectrum; Frequency response functions, coherence, signal-to-noise ratio; Non-stationary signals; Non-Gaussian signals.

Class Contact Two-hour lecture weekly. One-hour laboratory session/tutorial fortnightly.
Assessment Five assignments (50%) based on laboratory exercises. Final three-hour examination (50%). Students must attain a mark of at least 50% in each component to pass this subject.

VPM5000 INTERMODAL FREIGHT MARKETS – DYNAMICS AND STRUCTURE
Campus Werribee
Prerequisite(s) Nil.
Content This subject is concerned with the way in which rapidly restructuring logistics and freight handling systems are impacting on the efficiency and effectiveness of service providers in integrated and intermodal freight markets. It focuses particularly on developing concepts, skills and techniques that will assist transport professionals and managers in intermodal freight handling firms not only to understand the economic and competitive drivers in the market place but also how to define their corporate ‘product’ and the way in which they do business. The subject meshes principles with practice and is developed within a framework or a detailed understanding of the Australian freight industry and its operations and practice, and it is informed also by extensive experience in Southeast Asian and Pacific Rim countries, in the United States and in Europe.
Required Reading Course Handbook provided to each student.
Class Contact Forty five hours of block mode teaching.
Assessment Case study and seminar presentation, 10%; Syndicate group project, 40%; Research report, 50%.

VPM5001 INTEGRATING INTERMODAL FREIGHT SYSTEMS
Campus Werribee
Prerequisite(s) VPM5000 Intermodal Freight Markets – Dynamics and Structure.
Content This subject focuses on the need to create seamlessness in transport services and operations that span complex networks involving different modes and many interface points – depots, terminals, warehouses, ports, for example. It recognises that intermodal efficiency may not be easily achieved; and that action may be required on many fronts – including operational capacity matching, alliance formation, information and e-Business streamlining, rationalising chain structures, eliminating market structure inefficiency and harmonising policies and policy frameworks. Particular attention is paid to capacity measurement, provision and adjustment in freight networks; to efficiency costs and pricing frameworks; to ways and means of achieving efficient chain and supply chain structures; and to overcoming policy and regulatory constraints. This subject draws heavily not only on the Australian freight industry but also on international experience.
Required Reading Course Handbook provided to each student.
VPM5002 DEFINING STRATEGIES FOR INTERMODAL FREIGHT SYSTEMS

Campus Werribee
Prerequisite(s) Nil

Content This subject builds on the concepts, skills and techniques developed in VPM5000 and VPM5001. In those subjects students examined the nature of the intermodal freight market and the role of the intermodal service provider in it; and the ways and means of managing to achieve seamless and efficient operations. In this subject the guiding questions are strategic ones and focus on positioning the firm for the future. More particularly, the subject develops a strong understanding of the notion of strategy and of an adequate conceptual framework within which to define strategies. It also outlines some quite specific attributes of strategy for intermodal firms and for the effective achievement of integrated freight networks. This subject draws heaviy not only on the Australian freight industry but also on international experience.


Class Contact Forty five hours of block mode teaching.

Assessment Case study and seminar presentation, 10%; Syndicate group project, 40%; Research report, 50%.

VPM5003 ADVANCED CHAIN SYSTEMS MANAGEMENT

Campus Werribee
Prerequisite(s) Nil

Content This subject focuses on managing firms in chain systems to achieve fully integrated, rather than highly segmented and atomistic chains. It is concerned with ways and means of trading off system efficiency and costs in such a way as to deliver maximum customer value under varying economic and policy scenarios. This unit will ad further to the students’ understanding of process mapping, the design of static and dynamic KPIs and dynamic modelling solutions for efficient chains.

Required Reading Current available text book – student to be advised.


Class Contact Teaching for each unit is over a five day block.

Assessment A seminar paper, 10%; Group syndicate work, 40%; Research report, 50%.

VPM5004 FINANCIAL AND INVESTMENT PLANNING IN CHAIN SYSTEMS MANAGEMENT

Campus Werribee
Prerequisite(s) Nil

Content Third party service providers, like other firms, must understand the relationship between the costs of investments and the use of capital and the benefits of investment. The timing of investments, cost/price relationships and the risks associated with investment are of exceptional importance to business success. This unit focuses on these issues and introduces students to concepts, financial modelling and technique for developing investment scenarios.

Required Reading Current available text book – student to be advised.


Class Contact Teaching for each unit is over a five day block.

Assessment A seminar paper, 10%; Group syndicate work, 40%; Research report, 50%.

VPM5005 STRATEGY, STRATEGIC OPTIONS AND BUSINESS SUCCESS IN CHAIN SYSTEMS MANAGEMENT

Campus Werribee
Prerequisite(s) Nil

Content Rapid and continuing changes in complex intermodal and chain systems are resulting in significantly increased competitive pressures for third party service provider firms. What strategic options are available to stakeholder firms? And on what basis can the traditional ‘transport provider’ firms achieve sustained business success? This unit examines in depth the basis for business success and examines particularly the notions of market and supply chain power and draws on current research into real-world examples to provide guidance for stakeholder firms.
VPP6511 FIBRE OPTIC COMMUNICATION SYSTEMS

Campus Footscray Park
Prerequisite(s) Eligibility for admission to Master’s course.
Required Reading Palais, J.C. 2005, Fibre Optic Communications, 5th edn, Prentice-Hall, NJ.
Class Contact 36 hours lectures/tutorials/laboratories
Assessment Two assignments (each assignment report not exceeding 5000 words) 10% each; Two laboratory reports (word length of each not exceeding 2500 words) 10% each; Final examination [Two Hours] 60%.

VPP6512 ADVANCED FIBRE OPTICS

Campus Footscray Park
Prerequisite(s) VPP6511 Fibre Optic Communication Systems
Content Maxwell’s Equations for waveguides, boundary conditions and eigenvalue equations, planar dielectric waveguides and their modes, cylindrical dielectric waveguides and their modes, LP mode description, Gaussian approximation, dispersion in multimode and single mode fibres, normal mode theory of single mode fibre couplers. Role of optical amplifiers. Use of Bragg gratings for switching and dispersion compensation. Design and operation of current systems including those using dense wavelength division multiplexing.
Class Contact 36 hours lectures/tutorials
Assessment Four assignments (each assignment report not exceeding 5000 words) 10% each. Final examination [Two Hours] 60%.

VPP6521 OPTICS AND LASERS

Campus Footscray Park
Prerequisite(s) Eligibility for admission to Master’s course.
Class Contact 36 hours lectures/tutorials/laboratories.
Assessment Two assignments (each assignment report not exceeding 5000 words) 10% each. Two laboratory reports (word length of each not exceeding 2500 words) 10% each; Final examination [Two Hours] 60%.

VPP6522 DIGITAL COMMUNICATIONS OVER OPTICAL NETWORKS

Campus Footscray Park
Prerequisite(s) VPP6511 Fibre Optic Communication Systems
Content Fibre Optic transmission systems. Issues ofchromatic dispersion, fibres and operational wavelengths, sources and receivers. LANs, Gigabit and 10 gigabit Ethernet, WANs, MANs, power budget. Protocols for modern communication systems – SONET/SDH: Architecture and protocols, speeds, architecture layers, network elements, rings, switching; restoration, and diversity. WDM and DWDM: special fibres, erbium-doped fibre amplifier (EDFA), tunable laser diode at 1550 nm. Practical issues in Optical Networking, non linearities, Raman amplifiers. Future trends.
Required Reading Goralik, W. 2001, Optical Networking & WDM, SPIE, Bellingham WA
Class Contact 36 hours lectures/tutorials/laboratories exercises.
Assessment Two assignments (each assignment report not exceeding 5000 words) 10% each. Two laboratory reports (word length of each not exceeding 2500 words) 10% each; Final examination [Two Hours] 60%.

VPP6531 QUANTUM OPTICS

Campus Footscray Park
Prerequisite(s) Eligibility for admission to Master’s course.
Content Photoelectric effect and spontaneous emission. de Broglie Waves: wave-particle duality, Heisenberg’s Uncertainty Principle, properties of matter waves. Schroedinger Wave Equation: wave functions, expectation values, eigenfunctions, zero potential, potential steps and barriers, tunnelling, particle in a box, simple

**Required Reading**

**Recommended Reading**

**Class Contact**
36 hours lectures/tutorials/laboratories exercises.

**Assessment**
Two assignments (each assignment report not exceeding 2500 words) 10% each. Two laboratory reports (word length of each not exceeding 2500 words) 10% each; Final examination (Two Hours) 60%.

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**VPP6532 OPTICAL FIBRE SENSORS**

**Campus**
Footscray Park

**Prerequisite(s)**
VPP6511 FIBRE OPTIC COMMUNICATION SYSTEMS

**Content**
Introduction and basic concepts, materials interactions in optical fibre sensors, fibre optic components, special optical fibres for sensors, interferometer sensors, fibre-optic gyroscope, intensity and wavelength-based sensors, multiplexed and distributed sensors. Fibre Bragg gratings for strain or temperature measurement. Applications of fibre sensors, e.g. smart structures.

**Required Reading**

**Recommended Reading**

**Class Contact**
36 hours lectures/tutorials/laboratories exercises.

**Assessment**
Two assignments (each assignment report not exceeding 5000 words) 10% each. Two laboratory project (report not exceeding 10,000 words) 80%.

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**VPP6541 OPTICAL MATERIALS**

**Campus**
Footscray Park

**Prerequisite(s)**
Eligibility for admission to Master’s course.

**Content**
General Properties. Propagation of E/M waves in dielectric media; models of the refractive index; dispersion, absorption and the refractive index; frequency dependence; scattering; cross-sections. Properties of Lens Materials Commonly used materials in the ultra-violet, visible and infrared regions; transmittance, dispersion and the refractive index; environmental properties; examples. Solid State Laser Materials Host materials: crystalline materials, semiconductors, active ions; colour centres. Non-linear Materials Electro-optic effect; magneto-optic effect. Thin Film Materials Substrates. Optical damage mechanisms; self-focusing; damage thresholds; specification of cosmetic surface quality of optical components.

**Required Reading**

**Recommended Reading**

**Class Contact**
36 hours lectures/tutorials.

**Assessment**
Four assignments (each assignment report not exceeding 5000 words) 10% each. Final examination (Two Hours) 60%.
VQB5621 FIRE GROWTH, DETECTION AND EXTINGUISHMENT

**Campus** Werribee  
**Prerequisite(s)** Nil  
**Content** The subject provides students with basic information on fire technology and explains the initiation and development of fires including an understanding and facility in the application of the range of detection systems and of manual and automatic extinguishing subsystems in terms of: mechanism of extinguishment; detection performance; component modelling; response time assessment; reliability criteria, redundancy and the effect of maintenance; performance testing. The subject covers the combustion process and the fire triangle. Heat transfer mechanism, combustion of gases and vapours and fire plumes. Combustion of liquids and solids, fire toxicity and products of combustion. Fire behaviour of materials and products and fire retardants, fire test methods. Fire initiation and development. Pre and Post flashover enclosure fires. Mathematical modelling of enclosure fires (zone and field models). Management of fire initiation and development and implications to performance design. Detection and extinguishment, principles of detection and alarm. Fire detection and alarm systems, water based extinguishment. Fire engineering design for extinguishment, system reliability. Fire brigade response and operations.  

VQB5632 SMOKE AND FIRE SPREAD, FIRE SAFETY SYSTEM DESIGN

**Campus** Werribee  
**Prerequisite(s)** Nil  

VQB5642 PERFORMANCE CODES METHODOLOGY AND STRUCTURE

**Campus** Werribee  
**Prerequisite(s)** Nil  
**Content** The subject introduces the student to the principles, methodology and scope of performance based codes including a conceptual framework and historical background and provides the student with an understanding of the structure of performance design and approval and background and refresher material essential to an understanding of further subjects in the course. The subject covers: Conceptual framework of performance regulations; life safety, illness and injury, health, safety and amenity and asset protection. Historical background, ISO6241, NZB, international approaches, NZ model, equivalency concept. State legislation and the model building act (administrative framework). The Performance Based Code of Australia and Australian Standards (technical framework). Process and procedural matters; legal issues, documentation, joint and several tortfeasor liability. Integrated approvals; impact of performance regulation on other approvals. Fire Code Reform Centre (FCRC) overview and submodels. Risk management and assessment, an overview. Other PBCC performance designs. Through life performance and maintenance. Essential services recognition and documentation. Quality assurance and the building permit/inspection process.  

VQB5751 FIRE TECHNOLOGY MODELLING

**Campus** Werribee  
**Prerequisite(s)** VQB5621 and VQB5632  
**Content** The subject provides students with an understanding of the details of modelling fire growth and spread in buildings. The subject covers development of the design fire; fire spread models; fire growth models; atriums and large spaces; network modelling; computational fluid dynamics models; post-flashover compartment fire models; and model validation.  
**Class Contact** Equivalent to three hours of lectures per week for thirteen weeks.  
**Assessment** Four written assignments, 10%, 10%, 30% and 50%. Page limits: 10% – four pages, 30% – 12 pages, 50% – 20 pages.  

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VFQB5761 FIRE SAFETY SYSTEMS MODELLING

Campus Werribee
Prerequisite(s) VQB5611, VQB5621 and VQB5632
Content The subject provides students with an understanding of the details of modelling of active, and passive, building fire safety subsystems, and the details of human behaviour modelling. The subject covers detection and sprinkler operation predictions; modelling of barrier failure; structural fire safety; human behaviour modelling; suppression models; and a fire brigade intervention model.
Class Contact Equivalent to three hours of lectures per week for thirteen weeks.
Assessment Four written assignments, 10%, 10%, 30% and 50%. Page limits: 10% – four pages, 30% – 12 pages, 50% – 20 pages.

VFQB5772 FIRE SAFETY SYSTEM DESIGN

Campus Werribee
Prerequisite(s) Fire Safety System Design: VQB5751, VQB5761 and VQB5642.
Content The subject provides a description of various approaches used for the design of the safety in buildings, with particular emphasis placed on a fire safety system (FSS) performance model. The FSS model uses a risk assessment methodology to assess the risk to life safety and the expected losses, and to incorporate this risk assessment as part of the design procedure for the fire safety in buildings. The subject covers: introduction, alternative design approaches, fire engineering design code framework, risk assessment methodology, and description of a fire safety system (FSS) model and its parameters; risk to life submodel and economic submodel. Description of the various submodels comprising the FSS model—namely: fire initiation and growth submodel, smoke spread submodel, fire spread submodel, occupant communication and avoidance submodel, fire brigade submodel. In-service performance. Application of fire safety system models.
Class Contact Three hours of lectures per week for one semester.
Assessment Assessment will be on the basis of submission of required assignments and a project. Assessment of the Fire Safety System Project will be on the basis of submission of a major report. Project submission, 70%; assignments, 30%. Supplementary assessment will not be available.

VFQB5782 FIRE SPREAD AND FIRE SAFETY SYSTEM DESIGN PROJECT

Campus Werribee
Prerequisite(s) Fire Spread and Fire Safety System Design Project.
Co-requisite(s) VQB5772 Fire Safety System Design.
Content The first part of this subject provides an understanding of the mechanisms of and impediments to the spread of fire in buildings, and to provide a knowledge of the behaviour, analysis and design of the available subsystems for the management of fire spread. The subject covers: introduction and overview; reliability of smoke and fire management subsystems; mechanisms, timing and probability of fire spread; modelling fire spread; fire spread management subsystem; design of fire spread subsystem. In the second part of the subject Fire Safety System design project will apply knowledge gained during the course to the analysis and design of a cost-effective fire safety system for a proposed building project.
Class Contact No set contact hours, but a minimum of 32 hours per week of industrial experience is required for one semester.
Assessment Evidence of appropriate industrial experience in the form of a letter from the employer detailing the experience.

VFQT5790 INDUSTRIAL EXPERIENCE (FULL-TIME)

Campus Werribee
Prerequisite(s) Nil
Content No formal content; students will be required to provide evidence of appropriate industrial experience in Australia, acceptable to the Head of the Centre.
Required Reading Nil
Class Contact No set contact hours, but a minimum of 32 hours per week of industrial experience is required for one semester.
Assessment Evidence of appropriate industrial experience in the form of a letter from the employer detailing the experience.

VFQT5791 INDUSTRIAL EXPERIENCE (PART-TIME)

Campus Werribee
Prerequisite(s) Nil
Content No formal content; students will be required to provide evidence of appropriate industrial experience in Australia, acceptable to the Head of the Centre.
Required Reading Nil
Class Contact No set contact hours, but a minimum of 16 hours per week of industrial experience is required for two semesters.
Assessment Evidence of appropriate industrial experience in the form of a letter from the employer detailing the experience.
VQT6050 BUILDING FIRE RESEARCH (FULL-TIME)
Campus Werribee
Prerequisite(s) Students are normally expected to have completed the Graduate Diploma in Building Fire Safety and Risk Engineering with an Honours average.
Content The thesis will normally be from 15,000 to 25,000 words. It will report on independently conducted research which demonstrates the student’s ability to clearly define a problem, to undertake a detailed literature search and review the literature on the topic area. The student shall, where appropriate, demonstrate both the ability to develop and/or apply models to study the problem together with appropriate data selection, collection and analysis. Students will normally be supervised by an academic member of staff and by a co-supervisor external to the Centre. The external supervisor will be an academic from the University or from another institution or a practitioner.
Required Reading To be advised by lecturer.
Class Contact Regular contact will be made by arrangement with the supervisor.
Assessment Before commencing actual research, students must complete, to the satisfaction of the research supervisor, a paper critically reviewing the literature and providing a clear outline of the proposed research methodology and resources required to complete the thesis. The final thesis will be assessed by two examiners with expertise in the area of the research. These examiners may be internal or external to the Centre or the University and will not include the supervisors. Students may be asked to present themselves for oral or written examination by these examiners, at the examiner’s discretion.

VQT6060 BUILDING FIRE RESEARCH (PART-TIME)
Campus Werribee
Prerequisite(s) Students are normally expected to have completed the Graduate Diploma in Building Fire Safety and Risk Engineering with an Honours average.
Content The thesis will normally be from 15,000 to 25,000 words. It will report on independently conducted research which demonstrates the student’s ability to clearly define a problem, to undertake a detailed literature search and review the literature on the topic area. The student shall, where appropriate, demonstrate both the ability to develop and/or apply models to study the problem together with appropriate data selection, collection and analysis. Students will normally be supervised by an academic member of staff and by a co-supervisor external to the Centre. The external supervisor will be an academic from the University or from another institution or a practitioner.
Required Reading To be advised by lecturer.
Victoria University recognises that valuable learning takes place outside the University through:
- study towards formally recognised qualifications (either fully or partially completed) such as a degree, diploma, or certificate (this is referred to as credentialed study);
- short courses, offered by professional bodies, voluntary associations, workplaces, trade unions, government agencies and/or community groups, that do not lead to formal qualifications (or non-credentialed learning);
- work experience; and
- life experience.

Recognition of Prior Learning (RPL) or Recognition of Current Competency (RCC) is an assessment process whereby the learning that students have achieved through study and life/work experience is matched against the learning that would be covered in specific units of study.

Students are encouraged to think broadly about their experiences as in addition to providing entry into a course, students’ prior learning may enable them to be granted credits for units of study within that course.

Victoria University has established the following processes to facilitate the recognition of learning achieved outside the University: Pathways, Credit Transfer, and Recognition of Prior Learning or Recognition of Current Competencies.

By recognising students’ past experiences and achievements, the University ensures that students do not repeat the skills and knowledge they have already achieved. In this way students are able to shorten the length of their course, saving time and money. They study at the appropriate level, are encouraged to continue their learning and achieve their educational goals with maximum efficiency.

Students who have already successfully completed any of the units of study in the course in which they are enrolling may be eligible for credit transfer. Under Recognition of qualifications issued by another RTO, Victoria University will recognise Qualifications and Statements of Attainment issued by any Australian Registered Training Organisation.

Examples of pathways include:
- credit/exemptions – for example students who have successfully completed the Advanced Diploma of Business (Accounting) will receive credit for twelve units of study in the Bachelor of Business (Accounting), if they gain entry into that degree course;
- entry only – for example students who have successfully completed Science for Nurses (Gateway to Nursing and the Health Sciences) gain entry into the Certificate IV in Health (Nursing) if they meet particular entry criteria for the Certificate IV in Health (Nursing).

Pathways may also link courses in the same or different disciplines. Students who meet the conditions specified in the pathway will be granted the benefits specified in the pathway provided they have met the entry requirements.

Note that students who have not completed their initial course may still obtain credit in recognition of the relevant units of study successfully completed.
APPLICATION PROCESS
Students who believe that they are eligible for RPL/RCC, credit transfer or entry or credit through a pathway are advised to approach their Faculty or Department Office for further information including relevant application form. Forms are also available from the Centre for Commencing Students and Student Administration. Students are encouraged to discuss their application with their teacher/lecturer before it is submitted. Departments will provide information about the evidence that is required.

Students should provide details of any prior study when they:
• apply to enter a course;
• are interviewed in the Centre for Commencing Students; or
• enrol.

Students eligible for entry or credit on the basis of a formally approved pathway will be identified at the time of enrolment. Any credit may be granted at the time of enrolment.

The University will endeavour to process applications for RPL/RCC or credit transfer as soon as possible. Processing time depends on the complexity of the application but should take no more than four weeks.

FEES
An Assessment Fee may be charged where an external board/party is involved in the RPL/RCC assessment process.

A fee will apply to fee for service programs.

TAFE applicants will be notified of any applicable fees in writing.

NOTIFICATION
Applicants will receive in writing the results of their application for RPL/RCC or credit transfer or assessment.

RIGHT OF APPEAL
Applicants have the right to appeal the outcome of their application or the process. Refer to the relevant Faculty or Department Office for advice on the process for lodging appeals.

SELECTION CRITERIA FOR ARTICULATING STUDENTS – FACULTY OF HEALTH, ENGINEERING AND SCIENCE
The Faculty of Health, Engineering and Science at Victoria University is supportive of the provision of articulation pathways for students entering one of the faculty’s Bachelor award programs from a TAFE background.

When considering articulating students, the Faculty of Health, Engineering and Science takes into account the selection criteria set under the policy and procedures of the University.
STUDENT SERVICES DEPARTMENT

The Student Services Department's responsibilities feature administrative and professional services that range from admission to graduation, encompass the spectrum of dual sector offerings and relate to international and domestic students.

The Department is made up of a Director’s Office and three Branches. In summary the key groupings are as follows:

**Office of the Director:** responsible for department-wide operations of finance, staffing, policy and quality assurance as well as specialist childcare services that support the student experience through the provision of childcare at key campuses.

**Student Administration:** responsible for the key processes that feature a focus on statutory, system and student progress across the dual sectors including the key events of admission, enrolment, assessment and graduation.

**Student Liaison:** responsible for face-to-face student liaison through student service centres at all campuses, a student contact centre providing telephone and web services, and specialist services of student advocacy and representation.

**Student Support:** responsible for professional services that support and enhance the student experience including counselling, health, housing, financial and international student support as well as sport and recreation services.

**Children’s Services:** offers childcare services to staff and students at four University-operated centres including: Footscray Park Childcare, Footscray Nicholson Children’s Centre, Newport Children’s Centre, Werribee Children’s Centre. The centres aim to maintain a high-quality, caring environment where children have access to a range of educational programs that meet their individual developmental and creative needs.

Further details about what the above sections can offer students can be found on the Student Services website at: www.vu.edu.au/services

STUDENT SERVICE CENTRES

Student Service Centres are located at most campuses. These centres offer a full range of student administration services to students as well as providing 'self help' computers for student use. Casual space for student use is also provided at some Student Service Centres.

WEB BASED SERVICES

Victoria University offers a number of e-based self help resources for students.

AskVU is a web-based frequently-asked-questions database designed to assist current and prospective Victoria University students and staff with relevant questions. Initially this will include student administration questions related to enrolments and fees, but will develop over time to include other areas such as admissions, graduations, examinations etc.

AskVU allows users to:
- search for answers in an extensive database of frequently asked questions;
- ask a question to the Student Contact Centre; and,
- manage inquiries in a personal portal called ‘Your History’, where all your questions and askVU responses will be stored.

AskVU is accessed at: www.askvu.vu.edu.au

MyVU is a web-based portal for the use of current students that allows students to:
- check enrolment details;
- apply for a course online;
- apply for scholarships online;
- apply for graduation online;
- view student results online.

MyVU is accessed at: www.myvu.vu.edu.au

CONTACT FOR ALL ONSHORE STUDENT ADMINISTRATION ENQUIRIES

Telephone:  (03) 9919 1900
Website: www.askvu.vu.edu.au

STUDENT ADMINISTRATION AT OFFSHORE LOCATIONS

Graduation and Offshore Student Administration provides the student administration services for all offshore programs for both sectors. The University has partnerships with several organisations to enable programs to be delivered in offshore teaching sites such as Bangladesh, China, Hong Kong, Indonesia, Malaysia, New Zealand, Singapore, Thailand, and Vietnam.

GRADUATION AND OFFSHORE STUDENT ADMINISTRATION

Telephone:  61 3 99192846
Fax: 61 3 99192853
Email: offshoreadmin@vu.edu.au
Website: www.vu.edu.au
Located: Room 4C, 141, St Albans Campus

HOW TO APPLY FOR A VICTORIA UNIVERSITY COURSE

TAFE COURSES AND UNDERGRADUATE DEGREES

Applications for the majority of undergraduate degrees offered by Victoria University should be made through the Victorian Tertiary Admissions Centre (VTAC). Applications for study at TAFE certificates level I, II, and III should be made directly to Victoria University. For TAFE qualifications above these levels, applications for full-time study should be made through VTAC. Those seeking to study any TAFE course part time should apply directly to Victoria University.
POSTGRADUATE DEGREES
Victoria University offers a diverse range of postgraduate programs in a number of disciplines by either coursework or research. In general, prospective students must have completed a degree, with honours, from a recognised tertiary institution to be eligible for postgraduate research programs; or a degree from a recognised tertiary institution to be eligible for postgraduate coursework programs.

PREQUISITES AND EXTRA REQUIREMENTS
Some courses require applicants to complete specific requirements before they can be considered for entry. For example: completion of particular academic studies, attendance at an interview, presentation of a portfolio, or completion of a supplementary information form. These prerequisites and extra requirements are updated and published each year at www.vu.edu.au and in the VTAC Guide.

CENTRE FOR COMMENCING STUDENTS
As a future student, you can visit the Centre for Commencing Students (CCS) for course information and advice. You can pick up brochures for each higher education and TAFE course, covering all levels of study from certificate to post graduate courses. CCS staff are available to answer your queries, and a career counsellor will help you find the right career and course for you. Appointments can be made by contacting the CCS by email at CCS@vu.edu.au or by phoning (03) 9919 4110.

If you require more information:

• contact the CCS by email at ccs@vu.edu.au, by phoning (03) 9919 4110 or visit the CCS resource area, Building C, Victoria University, Footscray Park Campus, Ballarat Road, Footscray;
• pick up a course brochure from the CCS;
• read VU’s Guide for Parents, Transition from School to University and What it Requires information, available from the CCS;
• read VU’s higher education or TAFE handbooks. They contain detailed course information and are available in school libraries and from school careers advisers, or can be viewed online at www.vu.edu.au;
• visit the VU stands at local or metropolitan career expos; and
• come along to VU’s Open Day, Sunday 13 August 2006, Footscray Park Campus, Ballarat Road, Footscray, 10am – 4pm.

PORTFOLIO PARTNERSHIP PROGRAM
Victoria University’s Portfolio Partnership Program (PPP) is an alternative-entry scheme available only to Year 12 students attending a participating secondary college in Melbourne’s western metropolitan region and the City of Hume, and Macedon Ranges and Moorabool Shires. As an alternative-entry process to the University, the PPP looks beyond the ENTER score – it is based on criteria other than ENTER and middle-band selection. The PPP requires applicants to submit a portfolio that is used for selection to courses offered in the program.

The portfolio enables students to demonstrate:

• their goals and achievements;
• previous studies;
• work experience;
• skills and personal qualities;
• examples of their work; and
• other evidence that indicates a commitment to a proposed study area.

The PPP is for students who:

• have been consistent achievers in senior secondary years;
• have demonstrated the potential to succeed at university;
• have a strong vocational commitment; and
• have a strong preference for one of VU’s PPP courses.

Applicants may only apply for one course via the PPP by submitting their portfolio and ensuring the course is included in their VTAC application. For further details of available PPP courses view www.vu.edu.au/PPP or contact the Centre for Commencing Students (CCS):

Email: CCS@vu.edu.au
Telephone: (03) 9919 4110

SPECIAL ENTRY AND ACCESS SCHEMES

VTAC SEAS APPLICANTS
VTAC have introduced a system wide umbrella program called Special Entry Access Scheme (SEAS). For all VTAC courses, Victoria University will consider SEAS applications providing the applicant has lodged an application with VTAC and completed a VTAC SEAS form with appropriate supporting statements and/or evidence.

DIRECT APPLICANTS WHO APPLY FOR SPECIAL CONSIDERATION
Applicants who apply directly to the University should indicate in their application form if they are seeking any special consideration due to their life circumstances and if there are any circumstances which they believe have affected their ability to reach their full educational potential.

CATEGORIES FOR SPECIAL CONSIDERATION FOR VU COURSES
Mature Age Entry – applicants who have accumulated relevant experience since leaving school or since meeting tertiary entrance requirements.
Non-English Speaking Background – for an applicant who has arrived in Australia within the last 10 years and speaks a language other than English at home and considers the impact of a non-English speaking background on academic performance for entry to tertiary studies.

Recognition as an Indigenous Australian – applicants with an Aboriginal or Torres Strait Islander background, who can demonstrate association with an Indigenous community.

Difficult Family Circumstances – applicants who have been prevented from reaching their educational performance potential because of their family circumstances, which must be long term and severe.

Disadvantaged Socio-Economic background – applicants who have suffered educational disadvantage as a result of their socio-economic circumstances.

Rural or isolated Applicants – applicants who have suffered educational disadvantage as a result of either undertaking their secondary schooling in a rural or isolated area and/or are required to move from such an area to undertake the tertiary course of their choice.

Women in Non-traditional areas – courses where women are significantly in the minority of students eg Engineering and Information Technology.

BASIS FOR SPECIAL CONSIDERATION
Selection will take into account the applicant’s provision of with appropriate supporting statements and/or evidence identifying the following:
- the recency of the condition;
- the duration of the condition;
- the timing of disruption;
- the nature and severity of the condition.

NEED HELP?
The latest information regarding application procedures for individual courses, and the relevant forms, can be obtained from www.vu.edu.au/admissions.
Alternatively, contact the Admissions Office:
Email: admissions@vu.edu.au
Telephone: (03) 9919 2286

FLEXIBLE LEARNING
Victoria University offers a broad range of courses, from Certificate I to PhD. The University also offers bridging and preparatory programs for entry into courses. Different courses fit into the Australian Qualifications Framework. See section on AQF below.

The University is committed to establishing multiple course entry and exit points. Multiple entry points enable individuals to enter a course at a level that meets their educational needs. Multiple exit points provide students with the flexibility to exit at different stages of a course with qualifications. This flexibility accommodates work and other commitments that learners face throughout a lifetime. Victoria University encourages lifelong learning by recognising an individual’s past experiences and achievements. Recognition of Prior Learning (RPL)/ Recognition of Current Competency (RCC) and Credit Transfer facilitate movement along Articulation Pathways arrangements developed by the University and may save students time and money.

ARTICULATION PATHWAYS
Victoria University is a leader in the development of Articulation Pathways. Articulation Pathways link courses within and between the TAFE and higher education sectors. Articulation Pathways specify how previous study (usually in a related field) may be recognised and credited. For example, students who have completed the Advanced Diploma of Accounting may be eligible for up to 12 unit of study credits if they gain entry into the Bachelor of Business – Accounting. This means it may take them less time to complete the degree. Information about Articulation Pathways is available at www.vu.edu.au [through the Centre for Commencing Students home page link]. Articulation Pathways from university to vocational education and training qualifications are also becoming increasingly popular as a way of gaining industry experience needed to increase employment opportunities.

RECOGNITION POLICY (RPL/RCC)
Credit Transfer recognises a course or courses a student has previously undertaken and enables the student to gain credit in another course. Students who believe they maybe eligible for Credit Transfer should apply for it when they have accepted a place in a course and have enrolled and not when the teaching period commences. A Recognition Policy has been implemented which outlines the process for Recognition of Prior Learning (RPL) and Recognition of Current Competency (RCC) applications.
RPL/RCC is an assessment process that applies to individuals who may have prior study, or other relevant experience, but who do not have access to Credit Transfer arrangements for the chosen course. The RPL/RCC process recognises previous study by matching learning that has been achieved through study, life and work experience against learning that would be covered in specific units of study or modules. Students are encouraged to discuss possible Credit Transfer and RPL/RCC applications with the course co-ordinator at enrolment. For more information on Articulation Pathways, Credit Transfer and RPL/RCC contact the Centre for Commencing Students:
Email: CCS@vu.edu.au
Telephone: (03) 9919 4110

AUSTRALIAN QUALIFICATIONS FRAMEWORK
The Australian Qualifications Framework (AQF) is a system of thirteen national qualifications in schools, vocational education and training (TAFE and private providers), and the higher education sector (mainly universities). The framework links all these qualifications and is a highly visible, quality-assured national system of educational recognition which promotes lifelong learning and a seamless and diverse education and training system.

MODES OF STUDY
Most Victoria University courses can be studied either full time or part time. Part-time study allows students to further their employment opportunities or interests while meeting work, family or other commitments. A small number of courses also offer fleximode study, whereby students may undertake study via a combination of delivery/attendance methods, including:
- workplace learning;
- distance education;
- workshops;
- accelerated or decelerated learning.
NEW APPRENTICESHIPS

New Apprenticeships is a joint Federal and State Government initiative aimed at providing structured on- and off-the-job training to those interested in obtaining a nationally recognised qualification, while employed either full time or part time. Victoria University is a major New Apprenticeships provider and offers training in the following industry areas and many more:

- aged and disability care;
- animal studies;
- art and design;
- automotive;
- building and construction;
- chemical and oil;
- childcare;
- civic construction;
- community services;
- computer systems;
- electrical and electronics;
- engineering;
- food processing;
- hairdressing and beauty;
- hospitality;
- industrial skills;
- information technology;
- retail and wholesale;
- sales and marketing;
- security.

For further information about the Australian Government Incentives Program available through the New Apprenticeships Program, and what New Apprenticeships can do for you and your employer, contact Jobs Plus New Apprenticeships Services:

Website: www.jobsplusnac.com.au
Telephone: (03) 9919 8533

UNDERGRADUATE DEGREES

In general, undergraduate degree courses require three to four years of full-time study, depending on the program selected. These courses are generally open to students who have completed VCE or equivalent. Certain courses require previous study in selected disciplines, such as mathematics or physics. See individual courses, found in the ‘Course Information’ section of this guide, for details and prerequisites.

HONOURS DEGREES

To qualify for a bachelor degree with honours, students must complete an additional year of study in which they undertake in-depth theoretical studies and gain supervised research experience relevant to their chosen discipline. Students may enrol in an honours year if they complete an appropriate undergraduate degree and achieve consistently high-level results across the first three years of study.

COMBINED AND JOINT DEGREES

Combined degrees combine the core components of two disciplines of study – taken from either one or two faculties – into a single program of study. The program is undertaken over a four- or five-year period and the graduating student receives two degrees, for example: Bachelor of Arts – Asian Studies/Bachelor of Business – International Trade. Joint degrees integrate two degrees, each of which is run independently by two different schools, departments or faculties. The program is undertaken over a three- or four-year period and the graduating student receives a single degree, for example: Bachelor of Business – Marketing/Applied Economics.

POSTGRADUATE COURSES

NORMAL ENTRY

DOCTOR OF PHILOSOPHY (PhD)

To be eligible for admission a person must have:

- a masters degree; or
- a four-year bachelor degree with honours or honours degree with a superior performance at 1st Class or 2A honours level; or
- a three-year bachelor degree together with a postgraduate diploma that is an extension of the discipline contained in the undergraduate qualification and at a level considered to be equivalent to 1st Class or 2A honours, as determined by the Head; or
- been enrolled in a masters by research program and shown exceptional ability in the conduct of the first stages in a project and been approved for transfer into a PhD program by the Committee for Postgraduate Studies on the recommendation of the Head.

For admission to a PhD program a student must provide evidence acceptable to the Head of a capacity to undertake research in the discipline.

MASTERS DEGREE

To be eligible for admission applicants must have:

- qualified for a first degree of the University (or such other degree as the Department may deem equivalent for this purpose) at a standard considered by the Department to be sufficiently meritorious; or
- qualified for any other award judged by the Department to be of a relevant and appropriate standard; and
- produced evidence of professional experience through which they have developed their applied knowledge of the relevant field of study, and which satisfies the Department that they have the capacity to undertake study for the degree of master; and
- fulfilled any other conditions relating to prerequisite study which the Department may have imposed in respect of their admission to candidature.

GRADUATE DIPLOMAS AND GRADUATE CERTIFICATES

To be eligible for admission applicants must normally have successfully completed a degree or diploma and may be required to attend an interview or selection test.
UNDERGRADUATE COURSES

NORMAL ENTRY
Persons applying for entry to higher education undergraduate courses (other than those listed below under Direct Application) to study either full-time or part-time must apply through the Victorian Tertiary Admissions Centre.

While the VTAC Guide to Undergraduate and TAFE Courses is available from newsagents, a convenient and comprehensive application service is available from their website at: www.vtac.edu.au

Persons applying through VTAC should note that the VTAC rules, by which the University is bound, provide that no selection authority shall take into account the preference for that course as indicated by the applicant. This means that even if an applicant has indicated a lower preference for the course concerned than other applicants, there shall be no prejudice and each applicant will be considered equally.

PREREQUISITES AND EXTRA REQUIREMENTS
Some higher education undergraduate courses have special prerequisites for enrolment. Where this is the case, these requirements are published two years in advance in the Victorian Tertiary Education Requirements (this is published as a supplement in the press) and for the following year in the VTAC Guide.

For some higher education undergraduate courses, the application process requires applicants to complete a Supplementary Information Form available from the relevant Faculty Office, the Admissions Office or the University website: www.vu.edu.au/admissions. These courses are identified in the VTAC Guide.

SPECIAL ENTRY
Persons applying for admission to a University course under Special Entry (except those applying for readmission) should obtain an application form from the Centre for Commencing Students. However, persons seeking Special Entry must also apply to VTAC unless the course comes under the Direct Applications category.

READMISSION TO THE UNIVERSITY
Students who are currently enrolled in an award course may apply directly to the University for admission to another course for the following teaching period. Students seeking readmission to the University should contact the Faculty or School administering the relevant course or Student Administration.

All other students who were previously enrolled at the University but whose enrolment has lapsed, or who have been excluded from their course because of unsatisfactory progress, may reapply for admission to the same or another course in any subsequent academic year. These students should apply using the standard procedures for that course. Such applicants for readmission to the University will have to meet the selection criteria applying to their intended course.

The selection process will take account of:
- the person’s previous academic performance at the University and their commitment to complete the course; and
- whether the circumstances which led to the person’s previous unsatisfactory progress or to their allowing their previous enrolment to lapse have changed or improved.

If selected for readmission such students will be subject to the course requirements in effect at the time of re-entry and may have special conditions attached to their re-admission.

PART-TIME ADMISSION
Persons applying for admission on a part-time basis to Higher Education undergraduate courses and TAFE courses should follow the application procedures set out above. Where a form is to be lodged with the University as well as with VTAC, applicants should indicate their intention to study part-time on the form.

POSTGRADUATE COURSES

MASTERS BY COURSEWORK, GRADUATE CERTIFICATES AND GRADUATE DIPLOMAS
All persons seeking admission to postgraduate studies in the University (except for the Graduate Diploma of Education) must apply directly to the University.

Application forms for graduate certificates, graduate diplomas and masters by coursework are available from the Student Administration Admissions Office at the St Albans Campus or Faculty offices on the campus where the course is offered.

DOCTOR OF BUSINESS ADMINISTRATION
Prospective students should contact the Faculty of Business and Law office at either the Footscray or City campuses for application details.

DOCTOR OF PHILOSOPHY AND MASTERS DEGREES BY RESEARCH
Those persons interested in pursuing a research degree are advised to contact the Postgraduate Studies Officer in the Faculty or Department in which they wish to study to discuss research interests and to determine the availability of suitable supervisors and facilities relevant to the proposed research.

Once the Department has confirmed that the applicant is eligible to enrol, an Application for Enrolment Form must be completed and lodged along with the necessary enrolment forms at Student Administration.

DIRECT APPLICATIONS
All direct applications for admission to award courses must be on appropriate University application forms, available from the University. Telephone (03) 9919 2286 for details or via www.vu.edu.au/admissions.

CLOSING DATES FOR DIRECT APPLICATIONS
Applicants lodging direct applications should contact the relevant Faculty or School for closing dates. Direct applicants should note that the selection process will be facilitated by lodging application forms at the earliest possible date, with the required accompanying documentation attached.

SELECTION PROCEDURES
Applicants may be required to complete a literacy and/or numeracy exercise as part of the selection procedure and may be given the opportunity to attend an interview as part of the selection procedure.

DOCUMENTATION
Direct applicants currently attempting Year 11 or Year 12 subjects should lodge their applications by the due date and then send a copy of their results when they become available. Other applicants who have attempted Year 11 or Year 12 should attach a certified copy of certificates.

All persons seeking admission to a course leading to one of the above awards who did not complete VCE must support their application with documentary evidence proving they have the educational qualifications referred to in their application. All
documents should be in the form of certified copies and if documents are in a language other than English, officially certified translations together with certified copies of original documents are required. The University will retain all such evidence. Original documents should never be sent but must be available on request and may be required at a later stage of the selection process (e.g. during interview).

If a direct applicant has undertaken previous tertiary studies the applicant must attach a certified copy of the full transcript of his or her academic record(s) obtained at the previous institution(s). Please do not send original documents.

UNIT OF STUDY CREDITS AND ADVANCED STANDING CREDIT FOR PREVIOUS TERTIARY STUDIES

Students who have completed unit(s) of study at another tertiary institution may be granted credit for equivalent units in Victoria University courses. A unit of study credit will allow a student an exemption from a course unit of study, while the value of that unit of study will still be counted towards their award.

Applications for credit for previous tertiary study must be accompanied by documented evidence of the units of study passed, together with details of these units of study for comparison with the Victoria University course. Please note that the University may seek information from the other tertiary institutions about the applicant. The process is as outlined in the University’s Recognition Policy.

COURSE VARIATION BY SPECIAL APPROVAL

In cases where credit for units of study of a student’s course is not appropriate, the Dean of the Faculty or Head of the School or Department responsible for the student’s course may grant a variation to course requirements by special approval. A course variation substitutes alternative units of study of similar content and duration for units of study normally required within a student’s course.

The purpose of Course Variation by Special Approval is to avoid repeating curriculum material where it is deemed that a student will not gain substantial educational benefit from one or more of the normal requirements of the course, but where the student does not meet all the criteria for unit of study exemption.

APPLICATION PROCEDURE

Applicants for admission to courses at Victoria University should indicate on their application form if they wish to apply for credit. Applicants applying for credits are also encouraged to complete an Application for Credit Transfer Form. All such applications must be lodged before the end of the second week of the relevant teaching period.

Processing of applications for unit of study credit may take several weeks. This process will be facilitated by the applicant providing all relevant information when lodging an application.

The following documents must be included in an application:

- a completed Application for Credit Transfer Form. This form is available from Student Administration or the relevant Faculty;
- a copy of the applicant’s academic record from the previous institution(s);
- where available, a description of the unit of study as published in the Handbook of the applicant’s previous institution, e.g. if applying for an exemption in Economics 1 at Victoria University on the basis of a pass in Economics at Monash University in 2005, the applicant should attach a copy of the unit of study description of the unit from the 2005 Monash University Handbook; and
- any other material that applicants wish to submit in support of their application.

TIME LAPSE BETWEEN STUDIES

Normally, credits for studies in a previous course of study will not be considered if studies were undertaken more than 10 years prior to the application. Courses linked to fields in which there is rapid change in technology and/or knowledge may set a maximum time limit of less than ten years. In cases where it can be demonstrated that relevant skills have been maintained and, where appropriate, updated, the above time limit restrictions may be waived by the appropriate Dean or TAFE Deputy Director on the recommendation of the appropriate Head of School or Department.

SCHOLARSHIPS

Scholarships are available to Higher Education (undergraduate) and TAFE students studying full-time who meet one or more of the following criteria:

- are on a low income;
- have dependent children;
- have moved from a rural or regional area to study;
- have an Indigenous background;
- are returning to study;
- have completed Year 12 in the Western Region of Melbourne;
- experience other significant educational disadvantages.

Eligibility criteria will apply.

Scholarships vary in value from $1000 per annum to $4000 per annum. Apply online once you have enrolled or re-enrolled in a course at www.vu.edu.au/scholarships


Visit our website for further details: www.vu.edu.au/scholarships or phone (03) 9919 2581

ENROLMENT

WHAT YOU NEED TO ENROL

- Your Letter of Acceptance or VTAC Offer Letter (new students only)
- Your Tax File Number (TFN)
- Photo identification
- Proof of citizenship – an original or certified copy of any of the following:
  - Birth Certificate;
  - Birth Extract;
  - Passport;
  - Certificate of Citizenship;
  - Letter of Grant of Australian Citizenship;
  - Change of Name documents (if necessary).

If you are an Australian Permanent Resident please present an original or certified copy of any of the following:

- Passport showing Permanent Residence (PR);
- Certificate of Permanent Residency (PR);
- Change of Name documents, if necessary.

If you are enrolling into a TAFE course you will also need to bring along full payment of fees or part payment if on concession or applying for a fee extension.

TAFE students applying for a fee concession are also required to bring relevant documentation to support their application. Details about the documentation required can be found at the VU website www.vu.edu.au/student_services
PROOF OF QUALIFICATIONS
Admission and enrolment are conditional upon proof of stated qualifications. All claims of qualifications that have been obtained outside the University should be supported by appropriate documentary evidence, certified copies of which should accompany the application for admission. These copies will be retained by the University.

APPROVAL OF COURSE OF STUDY
All courses of study (i.e. individual student’s unit of study selection) must be approved by the Faculty, School or Department responsible for administration of the student’s course before enrolment registration will be accepted by the University. Students should take particular note of the administrative arrangements for enrolment.

ENROLMENT FORMS
All students commencing or continuing studies at Victoria University must complete the relevant official enrolment and statistics form(s). These form(s) must be approved and signed by an authorised officer of the relevant School or Department.

Victoria University is committed to protecting and maintaining the privacy, accuracy and security of your personal information and complies with the University’s published privacy policies, commitments, guidelines and procedures, which conform to and support all privacy obligations that bind the University. The University is compelled by law to supply some statistics – for example, it must supply statistics to the Bureau of Statistics. Statistics supplied to outside bodies will be in the form of aggregate figures only; the outside body concerned will be unable to identify any student by name. Only the Australian Taxation Office is supplied with the names, addresses, birth dates and HELP liability of relevant students of the University.

CONFIRMATION OF ENROLMENT
Confirmation of course and unit of study enrolment will be issued to higher education students each teaching period and to TAFE students, upon enrolment. Students should check their enrolment details carefully and notify Student Administration without delay of any errors or amendments using an Enrolment Amendment Form. Enrolment Amendment forms are available from Student Administration website, Faculty, TAFE School and/or Student Service Centres. They may be lodged at any Student Service Centre.

ENROLMENT REGISTRATION AND VALIDATION
An enrolment is registered by the University when it is appropriately approved and entered onto the University’s database by an authorised officer.

ENROLMENT PROCESSING TYPES
Student enrolments can be processed in one of three ways:

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>Commencing VTAC students and International Students.*</td>
</tr>
<tr>
<td></td>
<td>Enrolments are conducted at a centralised venue on campus.</td>
</tr>
<tr>
<td>Express</td>
<td>Limited to smaller groups of students as negotiated by individual Education Units.</td>
</tr>
<tr>
<td></td>
<td>Enrolment processing will be undertaken at your campus Student Service Centre.</td>
</tr>
<tr>
<td>Batched</td>
<td>Enrolments where the data entry of enrolment details and the production of a student invoice are done at a time other than when a student’s academic authorisation has been approved by the relevant TAFE School or Faculty.</td>
</tr>
</tbody>
</table>

* Applies to international students who (i) enrol in the week before teaching period 1 and 2 and (ii) a late session on Monday of week 1 of teaching period 1 and 2.

CANT’T ATTEND A SCHEDULED ENROLMENT SESSION?
Where students are unable to attend the designated re-enrolment session, they must arrange for a proxy to enrol on their behalf. The Enrolment by Proxy form is available on the VU website: www.vu.edu.au/Services/Student_Administration/Commonly_Used_Forms/. Please ensure that you carefully read the information on the back of the form. If you do not enrol or arrange a proxy, you will lose your place in your course and will be placed on a waiting list for re-instatement into your course.

COURSE TRANSFER
An enrolled student wishing to transfer to a course of study in another Faculty, School or Department must apply for admission to the intended course of study on the appropriate form. Where this course transfer is approved, the student will be withdrawn from the previous course and enrolled into the new course.

LAPPED ENROLMENT
Past students of the University who are not on approved Leave of Absence (or deferment) from the University and who have not enrolled at the University for the previous semester, automatically forfeit their student place at the University and must re-apply for admission according to the procedure set down for new students.

STUDENT IDENTITY CARD
An identity card (ID card) with your student number, photograph and signature will be issued to you once you have completed your enrolment.* This card should be carried with you at all times, as you may be asked to produce it at any time.

Your card is required in the following instances:

- admission to examinations;
- re-enrolment;
- library services;
- computer centre services; and
- travel and other concessions.

Your ID card number is a unique number and should be quoted on all correspondence with the University. Proof of identity is required prior to the issuing of your ID card. Cards can only be replaced by paying a fee and taking another form of photo identification to a Student Centre on campus.

In addition, University ID cards may be used to operate photocopiers and access other services.

* Students new to VU are required to provide proof of citizenship prior to issuing an ID card.

CONTINUING STUDENTS
Students who have been enrolled for the previous teaching period should comply with the re-enrolment requirements set down by the relevant Faculty, School or Department. Particular attention should be paid to University re-enrolment schedules.

ENROLMENT ENQUIRIES
Enrolment enquiries from students studying offshore should be directed to offshoreadmin@vu.edu.au
ENROLMENT VARIATIONS AND COURSE WITHDRAWAL

HIGHER EDUCATION STUDENTS

Students wishing to vary their enrolment should complete an Application for Unit of Study Amendment Form. Students should lodge the form at any Student Service Centre.

Students who withdraw from a unit of study before the census date do not incur a liability e.g. HECS-HELP/FEE HELP liability for those units of study.

Students who withdraw from units of study after the census date, but before the late withdrawal date, do incur a liability e.g. HECS-HELP/FEE HELP liability but not an academic penalty for those units of study.

Students who withdraw from units of study after census date incur a liability, e.g. HECS-HELP/FEE HELP liability and an academic penalty of ‘WN’.

If special circumstances occur after census date and studies cannot be continued, a student can apply for:

- Student Learning Entitlement (SLE) re-credited; and/or
- HELP debt remitted; and/or
- a refund of any up-front payments towards Student Contribution/Tuition fees.

Eligible students must apply in writing within 12 months from the date of withdrawal.

Students wishing to totally withdraw from studies should complete an Application for Course Leave of Absence, Deferment or Withdrawal Form, obtain approval from the Faculty or Department responsible for administration of the course, and lodge the approved form at any Student Service Centre. Withdrawal from units of study or courses will not automatically be permitted after census dates in each teaching period.

If a student withdraws from enrolment at the University during the year without being granted leave of absence, it will be necessary to re-apply for admission to the course to recommence studies at any later stage. In such circumstances, re-admission is not automatic.

TAFE STUDENTS

TAFE students wishing to vary their enrolment should complete the appropriate form within four weeks of the course start date.

RULES FOR VARYING AN ENROLMENT

Students must enrol in a course of study or for a unit of study during official enrolment periods.

Acceptance of late enrolments and late variations (but not course withdrawals) will be accepted based on the following table:

<table>
<thead>
<tr>
<th>TAFE Unit(s) of Study</th>
<th>On the first business day of the second week from the course start date after this time, program manager approval is required.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Ed Unit(s) of Study in a standard teaching period</td>
<td>On the first business day of the second week of the semester.</td>
</tr>
<tr>
<td>Higher Ed Unit(s) of Study in a non-standard teaching period</td>
<td>To the end of the first week.</td>
</tr>
<tr>
<td>Cross Institutional</td>
<td>Subject to Faculty approval and no later than census date for a given teaching period.</td>
</tr>
<tr>
<td>Research</td>
<td>Subject to Faculty approval.</td>
</tr>
<tr>
<td>Short courses less than 2 weeks duration</td>
<td>Subject to Department approval.</td>
</tr>
<tr>
<td>Short courses greater than 2 weeks duration</td>
<td>To the end of the first week of the course start date.</td>
</tr>
</tbody>
</table>

Higher Education students will be entitled to lodge a late unit(s) of study addition and Reduced/Overload Study form up to the end of the fourth week of a standard teaching period or the end of the

LEAVE OF ABSENCE AND DEFERMENT

Leave of Absence, for periods of up to one year initially, may be granted by the Faculty or School responsible for the administration of a student’s award course. A student must submit an Application for Course Leave of Absence, Deferment or Withdrawal form available from the Enrolment & Fees website or the relevant Faculty, School or any Student Service Centre.

Deferments will only be available to students who have not commenced their studies. Applications must be made within seven days from the date of offer being made to the student. It should be noted that not all faculties will offer deferment.

UNDERGRADUATE AND POSTGRADUATE COURSES

A completed Application for Course Leave of Absence, Deferment or Withdrawal form including a recommendation from the appropriate School or Department should be approved by the Faculty or School prior to the enrolment census date for the teaching period in which the leave is to commence.

The Faculty or School will advise students in writing regarding the outcome of their application.

Where leave of absence is approved for Higher Education students after the relevant enrolment census date, students will remain liable for HECS contributions in respect of their enrolment in that teaching period.

DOCTOR OF PHILOSOPHY AND MASTERS BY RESEARCH

Students should approach the Postgraduate Studies Unit, Footscray Park Campus for advice regarding application for leave of absence. Application forms can be obtained from the Unit or any Student Service Centre.

PERSONAL DETAILS

Students who change their name, address or emergency contact must do this in writing by completing a Personal Data Amendment form available from a campus Student Contact Centre.

Students requiring a change of name must produce documentary evidence e.g. marriage certificate, statutory declaration) in addition to completing a Personal Data Amendment form.

ENROLMENT RELATED FEES AND CHARGES

Students are required to pay all the fees for which they have been assessed including:

- the General Service Fee, inclusive of a building levy (if applicable);
- Tuition fees; and
- Student Contribution amount (if applicable).

Some Higher Education students will be eligible to defer their Student Contribution amount/Tuition Fees through a Higher Education Loan Program (HELP).
PAYMENT OF FEES IS REQUIRED BY THE DUE DATE AS SPECIFIED ON THE TAX INVOICE.

Students are required to pay their relevant fees by the due date as outlined in their invoice. TAFE concession Students are required to pay the minimum fee (expected to be $70) at the time of their enrolment.

Students who are experiencing financial difficulties and are unable to complete payment of their fees on time should seek advice from Student Services Department.

GENERAL SERVICE FEE (GSF)

These fees are paid to the University to fund a variety of non-academic and general services, activities and facilities of benefit to all students. The amount is determined by the students' enrolment load to a maximum amount of $300 for the year. It should be noted that this fee may be subject to future legislative changes and are subject to Council approval.

The detailed GSF amounts for students (excepting full fee students) is:

- For enrolment in higher education units of study: $2.61 per 0.01 equivalent full-time student load;
- A building levy of $40 for enrolment at one or more of the University's Australian campuses;
- For enrolment in Technical and Further Education units of study: $0.362 per student contact hour (SCH);
- A building levy of $40 for enrolment at one or more of the University's Australian campuses;
- A building levy of $4 for students enrolled in Industrial Skills Training Centre part courses;
- TAFE concession students undertaking government funded courses pay an $18 GSF.

ONSHELRE, OFF CAMPUS STUDENTS

Onshore students enrolled in either higher education or TAFE courses for delivery by off campus mode are required to pay the minimum GSF.

TAFE TUITION FEES

Fees will be implemented in line with Ministerial Directions. For 2006, a tuition contribution of $1.31 per enrolled hour applies with a minimum amount of $52 to a maximum of $839.

HIGHER EDUCATION TUITION FEES

Undergraduate and Postgraduate units of study are grouped into Student Contribution (SC) bands based on demand for the discipline and the cost of teaching the unit. A students' liability also depends on their relative study load as determined through their equivalent full-time study load (EFTSL) and whether they have continuous study in their course of study prior to 2005. Further information can be accessed at: www.goingtouni.gov.au

Specific details of VU student contribution amounts and the cost of teaching the unit. A students' liability also depends on their relative study load as determined through their equivalent full-time student load. A building levy of $40 for enrolment at one or more of the University's Australian campuses. A building levy of $4 for students enrolled in Industrial Skills Training Centre part courses. TAFE concession students undertaking government funded courses pay an $18 GSF.

EXEMPTIONS

In cases of hardship, students can contact Student Support staff at your campus.

REFUND OF FEES

HIGHER EDUCATION DOMESTIC STUDENTS

If you have withdrawn from your Course or any subjects or taken an approved Leave of Absence, the table below will help you work out any refund of fees you may be eligible for.

An administration charge of $10.00 is payable for refunds of the General Services Fee, except when transferring to another institution. This is deducted from the refund payable.

TAFE DOMESTIC STUDENTS

If you have withdrawn from your Course or any Units of Study, the table below will help you work out any refund of fees you may be eligible for. Students transferring to another institution within 4 weeks of the course start date are eligible for a full refund, proof must be provided with the application.

CROSS INSTITUTIONAL ENROLMENT

STUDENTS OF VICTORIA UNIVERSITY

Special arrangements can be negotiated whereby students studying towards a recognised higher education award may be given specific approval to undertake studies outside their awarding institution to count towards completion of course requirements. Such arrangements are termed 'Cross Institutional Enrolment'.
The Course Co-ordinator of the relevant faculty and VU International in the case of an international student, must approve the Cross Institutional enrolment. Approval will not be given for more than one-half of a student’s course to be undertaken at another institution. Approvals must be completed prior to the teaching period census date.

A student of the University who undertakes an approved cross institutional course is required on completion of the unit to provide a copy of the results to the relevant VU Faculty Office to confirm completion of the Unit of Study(s) and in order for the appropriate grade to be entered against their external Unit of Study enrolment and to avoid delays when applying to graduate.

Where the host institution administers a Commonwealth Supported place in respect of a cross institutional enrolment that is approved by this University to count towards completion of a course, that part of the student’s Unit of Study enrolment at this University relating to the cross institutional studies will be exempt from student contribution liability. Such liability will be payable at the other institution where the Unit of Study is undertaken.

STUDENTS OF OTHER INSTITUTIONS

Students who have been admitted to higher education award courses at other tertiary institutions will, under certain circumstances, be permitted to undertake studies at the University to count towards completion of those courses. Admission of cross institutional students is subject to funding, timetabling and class size considerations, and requires the approval of the Head of School or Department responsible for teaching the Units of Study concerned.

Students of other institutions wishing to apply for enrolment should obtain written approval from the Director Student Services (or equivalent) at their home institution, verifying their enrolment status, indicating the nature of the studies to be undertaken, and certifying that the studies, if successfully completed, will count towards the student’s academic record at their home institution.

Students who have produced documentation required in accordance with the previous paragraph will be exempted from payment of the GSF normally required upon enrolment at the University, on the basis that they have already paid such a fee elsewhere. Students will normally be required to accept liability in respect of Units of Study undertaken at this University. However, students should not be required to accept liability more than once in respect of any particular component of enrolment.

HIGHER EDUCATION COMMONWEALTH SUPPORTED STUDENTS

A Commonwealth Supported place is a higher education place for which the Commonwealth makes a contribution towards the cost of the students education. Commonwealth Supported students will generally be required to contribute to the cost of their education through a student contribution amount. The student contribution amount applicable for Unit of Study offered at Victoria University is available at: www.vu.edu.au/Courses/Fee_Guide/

WHO IS ELIGIBLE TO BE COMMONWEALTH SUPPORTED?

Students are eligible to be Commonwealth Supported if they are:

- an Australian citizen;
- a New Zealand Citizen who will be resident in Australia for the duration of the unit of study;
- the holder of a permanent visa who will be resident in Australia for the duration of the unit.

Particular rules in relation to this eligibility have been determined by the Commonwealth government and can be viewed at: www.goingtouni.gov.au

HIGHER EDUCATION LOAN PROGRAM (HELP)

Loan programs exist for higher education students as outlined in Higher Education Support Act 2003 (HESA). Eligible students have access to deferred payment arrangements through the Higher Education Loan Programme (HELP).

The HELP scheme consists of three loans:

- HECS-HELP;
- FEE-HELP;
- OS-HELP (only available to undergraduates).

As well as the HELP scheme, there are a number of Commonwealth and privately funded scholarship opportunities available to eligible students to assist with the costs associated with undertaking higher education. For further information on loan programs please visit the Going To Uni website: www.goingtouni.gov.au

HECS-HELP ASSISTANCE

There are two forms of HECS-HELP assistance as follows:

- a HECS-HELP Loan made available by the Australian Government to eligible Commonwealth Supported students to assist in the payment of their Student Contribution amount;
- a HECS-HELP discount of 20 per cent is available to all students who make upfront payments of $500 or more, towards their Student Contribution amount directly to their Higher Education Provider prior to Census Date.

HECS-HELP – WHO IS ELIGIBLE?

Students are eligible for HECS-HELP assistance if they:

- are enrolled in a unit of study as a Commonwealth Supported student; and
- meet the citizenship or residency requirements as outlined in the HESA; and
- submit a completed Request for Commonwealth support and HECS-HELP form; and
- supply their Tax File Number if they intend to defer their Student Contribution amount through a HECS-HELP loan; or
- pay 80 per cent of the Student Contribution amount directly to the Higher Education Provider.

FEE-HELP ASSISTANCE

FEE-HELP is a loan scheme that assists eligible students to pay their tuition fees. FEE-HELP can cover all or part of a student’s tuition fees, up to a lifetime limit of $50,000, the amount is indexed each year by DEST.

FEE-HELP – WHO IS ELIGIBLE?

Students are eligible for FEE-HELP assistance if they:

- are undertaking study at an eligible higher education provider or Open Learning Australia; and
  - meet the citizenship or residency requirements as outlined in the HESA; and
  - are enrolled in an eligible unit of study on the census date; and
  - are not Commonwealth Supported in relation to the unit;
  - have submit a completed Request for FEE-HELP assistance form;
  - meet the Tax File Number Requirements; and
  - have not exceeded the FEE-HELP limit.

OS-HELP ASSISTANCE

OS-HELP is a loan scheme to assist eligible undergraduate students to undertake some of their course of study overseas. OS-HELP is not available to students undertaking their whole course outside Australia.
OS-HELP – WHO IS ELIGIBLE?
The following table outlines who is eligible for OS-HELP assistance:

<table>
<thead>
<tr>
<th>Eligibility Requirements</th>
<th>You must be:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizenship</td>
<td>An Australian citizen, or</td>
</tr>
<tr>
<td></td>
<td>The holder of a permanent humanitarian visa.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enrollment conditions</th>
<th>You must be:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enrolled in an undergraduate course of study, and</td>
</tr>
<tr>
<td></td>
<td>Enrolled in full-time study with an overseas higher education institution or the overseas campus of Victoria University for study commencing on or after 1 January 2005 and for which you will be outside of Australia while undertaking the study.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course of study</th>
<th>You must:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Have successfully completed at least one year (equivalent full-time) of your course of study in Australia as a Commonwealth-supported/HECS student or as a merit-based equity scholarship holder; and</td>
</tr>
<tr>
<td></td>
<td>Have the overseas study count as credit towards the course of study you are enrolled in; and</td>
</tr>
<tr>
<td></td>
<td>Still have at least one half year (equivalent full-time) of study yet to complete in your course when you return from overseas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Previous OS-HELP loans</th>
<th>You must not have:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Received OS-HELP on more than one other occasion, and</td>
</tr>
<tr>
<td></td>
<td>Been granted an OS-HELP loan from another provider for the same or overlapping period.</td>
</tr>
</tbody>
</table>

Application for OS-HELP loans are to be made directly to the Education Abroad Unit, with the forms located on the VU Internet. Further information can be provided by contacting the Education Abroad Unit on: educationabroad@vu.edu.au

**STUDENT LEARNING ENTITLEMENT AND CHESSN**

Students eligible for a Commonwealth Supported place will receive a Student Learning Entitlement (SLE), providing access to seven or more years of equivalent full-time study load in a Commonwealth supported place. Commonwealth Supported Students will be allocated a Commonwealth Higher Education Student Support Number (CHESSN) allowing them to monitor their SLE balance. Students can access information relating to their SLE balance via the Going to Uni website at: www.goingtouni.gov.au

**TAX INVOICE**

The University will issue a Tax invoice to each student detailing:

- the student’s personal details;
- the course of study the student is enrolled in; the units of study the student is enrolled in for the current teaching period;
- the Effective Full Time Student Load (EFTSL) or Student Contact Hours (SCH) for each unit(s) of study for Higher Education and TAFE students respectively; and
- details of applicable fees due that may include Amenities and Services fees; Material and Ancillary fees; Student Contribution amounts and/or Tuition Fees;
- Payment methods.

**COMMONWEALTH ASSISTANCE NOTICE**

Higher Education Commonwealth Assisted Students are issued with a Commonwealth Assistance Notice (CAN) within 28 days of Census Date for each teaching period of study. Students are required to check the enrolment information provided on the CAN and inform the University in writing within 14 days of generation of the CAN if they identify incorrect information. If the University does not receive any feedback from a student within 14 days of the CAN being issued, the student’s enrolment record as shown on the CAN is taken to be correct and the student will incur the Student Contribution and/or Tuition Fees for each Unit of Study listed on the CAN.

**ASSESSMENT**

A candidate becomes eligible for assessment in a unit of study only when enrolled in that unit. Candidates will be considered as having entered for assessment in all units of study for which they have enrolled.

A student will be deemed to have enrolled for assessment in a unit of study unless such enrolment has been formally withdrawn by the specified date. Application for timely unit of study withdrawals must be made on the appropriate University form. Total withdrawal from a course of study must be approved by the Faculty, School or Department responsible for administration of the student’s course by the specified date.

All defined fee payments must be completed before any enrolment or assessment is validated and/or confirmed by the University. The enrolment of those students who do not complete payment within the required timeframe will be cancelled. Students are notified of an enrolment cancellation by mail. A student will only be reinstated to the course where authorisation from the Faculty or TAFE School’s Administration office has been obtained, a reinstatement fee and all outstanding fees have been paid.

When students enrol at the commencement of the academic year, a provisional enrolment for Semester Two is registered. It is important to note that the Faculty or TAFE School administering each course of study has the power to amend, restrict or cancel provisional semester enrolments.

All enrolled students are eligible for assessment in each of the units of study in which they are enrolled. In most units of study offered by the University there will be more than one assessment task or component of assessment during a teaching period.
CONDUCT OF EXAMINATIONS

Enquiries about examinations may be directed by email to examinations@vu.edu.au or to the Student Service Centre on your campus.

Unless otherwise indicated on the published timetable, examination sessions will normally commence at:

- **9.30am** morning examination sessions
- **2.00pm** afternoon examination sessions
- **6.00pm** evening examination sessions

Students will be admitted to the examination room at those times and given fifteen minutes at the commencement of the session for the purpose of reading the paper. Any variation of this practice will be notified to students in the printed timetable. As a rule, no writing, note making or marking of the paper in any way is permitted in this reading time. A member of the academic or teaching staff will be present at the beginning of each examination session at the examination venues to answer any inquiries about the question paper.

Before entering the examination room, students must ascertain their individual seat numbers from lists posted on noticeboards at the examination venues and web site www.myvu.vu.edu.au. Lists are posted on the University website at least two weeks prior to the commencement of examinations. Any student who has not been allocated a seat number should report immediately to a Student Service Centre before the commencement of the examination session.

No student may enter the examination room more than half an hour after the commencement of the session or leave the examination room until half an hour after the commencement of the session or during the last quarter of an hour of the session.

You may bring into the examination room: pens, ink, pencils, rulers, erasers and mathematical instruments (see below for use of calculators and electronic devices).

You may not bring into the examination room any book, paper or other material that has not been specifically authorised for use at that particular examination: if, during an examination, you are found to be in possession of such material, you will be reported as having breached examination rules and may face disciplinary action.

You are strongly advised not to bring to examinations any unnecessary clothing, papers, books, bags, handbags, wallets, folders, valuables or other personal items. You will not be permitted to bring into the examination room any bag, handbag, folder, pencil case, calculator case, pager or similar item. You are warned of the possibility of theft. The University accepts no responsibility for loss of or damage to any item left outside of or brought into an examination room.

You must bring your student identity card or other photographic identification such as driver’s license or passport to each of your examinations. Checks will be conducted in examination venues to verify the student’s identity and any discrepancies will be dealt with University Statutes.

Further information about the conduct of the examinations is given in the Rules and Regulations published with the examination timetable and on the University web site at: www.vu.edu.au/Services/Examinations/Rules_and_Regulations/
ACADEMIC MISCONDUCT
Students should note that the University regards academic misconduct as a very serious matter. Students found guilty of academic misconduct could be excluded from the University. The period of exclusion will vary depending on the circumstance of individual cases.
The following are some of the actions which have resulted in students being found guilty of academic misconduct:
- taking unauthorised materials into an examination;
- submitting work for assessment knowing it to be the work of another person;
- improperly obtaining prior knowledge of an examination paper and using that knowledge in the examination;
- disobeying any reasonable instruction of a supervisor;
- directly or indirectly assisting other students or accepting assistance from any other person other than a supervisor.
Possible penalties if found guilty of academic misconduct are referred to in Statute 2.7 and include:
- a formal reprimand;
- forfeiture of the whole or part of any assessment in the unit of study to which the misconduct relates;
- the imposition of a fine of not more than $500;
- suspension or exclusion from the course in which the student is enrolled.

SPECIAL CONSIDERATION
Students may apply for special consideration if their work during a teaching period or examination or other assessment has been gravely affected by illness or other serious cause.
Application must be made no later than three days after the date of submission of the assessment for which special consideration is sought. Applications seeking an extension of time to complete a component of assessment should be made to the relevant School or Department. All other applications should be made to the relevant Faculty Manager concerned or to the TAFE Executive Officer.
Where students have been prevented by illness or other cause from making application within the three-day period they can make a late application setting out the reasons why the application could not be made earlier.
A successful application for special consideration may result in the student being allowed to undertake supplementary or further assessment.
Students will not be given special consideration for misreading the examination timetable.

STUDENTS WITH DISABILITIES – ALTERNATIVE ASSESSMENT ARRANGEMENTS
Students with an ongoing disability should immediately register with Disability Services in the Equity and Social Justice Branch of the University once enrolled in their course. Students with a temporary disability, which puts them at a disadvantage in written examinations, should advise the relevant Faculty Manager or the TAFE Executive Officer and also register with Disability Services at the beginning of the teaching period of study or immediately after their disability is known to discuss alternative arrangements for examinations.
Alternative assessment arrangements could include extra time, a separate room or use of adaptive equipment in examinations.

USE OF LINGUISTIC DICTIONARIES
Students may apply to use an English language dictionary in an examination during the first 2 years of enrolment in the University if:
- the student has arrived from a non-English-speaking country within the last five years;
- the student has regularly attended an approved program designed to improve their language skills.
These are general guidelines only and criteria may vary with individual unit of study assessment requirements. An Application to Use a Dictionary Form is available from campus Student Contact Centres and must be presented together with a registered dictionary. The concerned lecturer must then approve this form. After the completion of this process, students are required to bring this form along with the dictionary to the examination venue.

USE OF ELECTRONIC DICTIONARIES
The use of electronic dictionaries is not permitted.

USE OF COMPUTERS AND ELECTRONIC CALCULATORS
Faculties, Schools and teaching Departments are responsible for determining which materials will be allowable for use in examinations. Students should refer to individual unit of study guides for details about the use of calculators and electronic devices.
Generally, students will be allowed to bring into an examination only pens, pencils and non-electronic mathematical instruments unless otherwise specified in the unit of study guide.

FURTHER ASSESSMENT
Before the results of assessment for any component of assessment are published, the examiners may administer a further component of assessment to resolve any doubts as to whether a student has reached the required standards, or about the grade to be awarded to the student.
This means it is vital that students ensure they can be easily contacted between the time a component of assessment is completed and results are published.

NOTIFICATION OF RESULTS
The final results for any unit of study will not be officially notified to students before the completion of assessment in that unit of study and their formal publication. No information regarding results will be given by telephone.
A further component of assessment – oral, written or practical – may be administered by the examiners in any unit of study at short notice and before the publication of results. Students should therefore ensure that they can be easily contacted until the publication of results.

REVIEW AND REPORTS
Students may apply to have an assessment of any work remarked or to be given a report on their assessed work. These applications may be subject to a fee.
Applications must be made to the Chairperson of the relevant Examination Board within seven days of the day upon which the results of assessment were published or become available for collection.
Students will be notified of the results of any review of their work.
UNIT OF STUDY ASSESSMENT AND GRADING

Grades for Year 2006 are as follows:

GRADERS FOR ASSESSED UNITS OF STUDY (INCLUDING THESIS)

Grades for Honours Unit(s) of Study, Theses and Units of Study taken in Postgraduate Courses, Grades for Honours Years, Honours Degrees, Degrees with Honours and Degrees of Master, are all assessed as a whole.

H1 First Class Honours, 80 per cent – 100 per cent
H2A Second Class Honours, Upper 70 per cent – 79 per cent
H2B Second Class Honours, Lower 60 per cent – 69 per cent
H3 Third Class Honours, 50 per cent – 59 per cent
N Fail, 0 per cent – 49 per cent
S Ungraded Pass

GRADERS FOR OTHER UNITS OF STUDY

HD High Distinction, 80 per cent – 100 per cent
D Distinction, 70 per cent – 79 per cent
C Credit, 60 per cent – 69 per cent
P Pass, 50 per cent – 59 per cent
N1 Fail, 40 per cent – 49 per cent
N2 Low Fail, 0 per cent – 39 per cent
S Ungraded Pass*
U Ungraded Fail

*S Ungraded Pass may also be used to represent the grade Recognition for Prior Learning.

COMPETENCY – BASES GRADES (TAFE)

CC Achieved Outstanding Competency
CP Achieved Competency – Highest Grade Awarded
PP Achieved Competency
NN Competency Not Achieved

CODES FOR INCOMPLETE ASSESSMENT

X Continuing Unit of Study
L Not Yet Assessed – Special Cause**
(Ro Higher Education Units of Study only)
RO Result Outstanding

**An L grade is required to be converted to a final result grade within one teaching period and prior to the commencement of the following academic year, otherwise the assessment automatically lapses to a Fail.

ADDITIONAL CODES

SC Satisfactory Completion of Class Hours
UC Unsatisfactory Completion of Class Hours
SE UoS Exemption/Credit Transfer
E1 Exempt Semester 1 [full year UoS]
E2 Exempt Semester 2 [full year UoS]
CE Joint Course/Complementary Enrolment
(result issued by other institution)
NT Not Assessable
(Short Course Module or Short Course Unit) [TAFE only]
NY Not Assessed (Internally approved, or Nationally Accredited, Module or Unit) [TAFE only]
WN Withdraw – Failed
WD Withdraw – Without Academic Penalty
WL Withdraw – Late
VC VCE
TA TAFE Preparatory Assistance
S Recognition of Prior Learning/Recognition of Current Competencies

COURSE ASSESSMENT AND GRADING

Special provisions are made on a course-by-course basis for students who encounter difficulties with academic progress. The provisions for Stage Completion and Faculty Passes detailed below should be read in conjunction with the course-specific progress regulations that appear in the Faculty Details of Courses.

STAGE COMPLETION

Some courses are formally divided into stages. These are identified in the details of courses.

Following final assessment in all units of study within a course semester, course year or other defined course stage, a student may receive a stage grading as follows:

• stage completed, all units of study passed;
• stage completed by compensation.

Stage completion by compensation will only be granted to a student who, though not passing all individual units of study, has aggregated grades above pass level and at a standard appropriate for progression to the subsequent course stage. Stage completion by compensation is not a pass in the unit of study and might not be recognised by all appropriate professional bodies.

Procedures for stage gradings in particular courses are as recommended by academic course departments or faculties and approved by the University.

MAXIMUM TIME FOR COMPLETION OF AWARDS

The policies set out below represent the basic rules relating to the granting of a University award. Additional rules or requirements set by the Faculty are included in the Faculty section of this Handbook.

PARTIALLY COMPLETED COURSES

Where a student enters a University course by transfer from incomplete studies at another institution, that student must complete at least the final full-time year (or equivalent) of the course to qualify for the University award. This applies to all courses that are longer than one year of equivalent full-time study in duration.

This means, for example, that a student entering a three-year course having previously completed over two years of a comparable award at another institution can receive, at a maximum, two years’ advanced standing in the Victoria University course.

COMPLETED COURSES – MAXIMUM ADVANCED STANDING

A student who has qualified for a VU degree or diploma must complete, at a minimum, the equivalent of at least one year’s full-time study in order to qualify for any subsequent University qualification at a comparable level.

MAXIMUM TIME FOR THE COMPLETION OF AWARDS

To be eligible for the award of a Degree, Diploma, Associate Diploma, Advanced Certificate or Certificate, a student is required to complete all course requirements within the course progression regulations within the University. maximum periods of time, unless such provision is specifically waived for that student by the University.

Maximum times for completion of awards are as follows:

• Certificate 5 years
• Advanced Certificate 5 years
• Associate Diploma* 8 years
• Undergraduate Diploma 10 years
• Undergraduate Degree of 3-years duration full-time 10 years
• Undergraduate Degree of 4-years duration full-time 10 years
• Graduate Diploma 6 years
• Graduate Certificate 3 years

*Including time taken to complete preliminary Advanced Certificate year where applicable.
The time periods are taken from the beginning of the first teaching period for which the student was enrolled in the course, until the completion of all course requirements, and may include time elapsed due to deferment, suspension or voluntary withdrawal from the course.

Note: The maximum completion times apply in the absence of specific course requirements. For specific courses, shorter maximum time periods can be specified, and where this is the case, the shorter time limit will apply.

**ACADEMIC PROGRESSION**

**UNSATISFACTORY PROGRESS**

The demand for tertiary study places exceeds the number of places available. Every year a considerable number of applicants fail to gain entry to the University. It is assumed that every person selected into an award course has the capacity to succeed. However, if students do not progress satisfactorily, they will be asked to show cause as to why they should be permitted to continue in the course.

An important aim of the University is to assist its students to succeed. Therefore, students should make use of the free counselling services provided if they are encountering problems or difficulties that are affecting their studies. These difficulties could include problems in organising time, financial difficulties, personal problems or difficulties in writing and presenting assignments and essays.

On the recommendation of the relevant Faculty or School, the University may specify academic progression rules for each individual course. Students should carefully read the progression rules relating to their course of study as detailed in the relevant section of the Handbook or in course regulations.

A student who fails to make satisfactory progress in a course of study is liable for exclusion from that course. This applies where a student does not achieve a satisfactory performance on a component of assessment, fails to attend without good reason for the performance of a component of assessment, or does not perform a component of assessment. In these cases, the relevant Faculty, School or Department, after investigating the circumstances and allowing the student to be heard, either personally or through a representative, may notify the student in writing that he or she has made unsatisfactory progress in a unit of study.

In addition to notifying the student of unsatisfactory progress, the relevant Faculty or School may also notify the student that it intends to make a recommendation to the Academic Board or the Board of TAFE that the student be excluded or suspended from the course or only be allowed to continue under certain specified conditions. As a general policy, the following will form part of all award course progression regulations within the University.

Students may not:
- enrol in any sequential unit of study without having passed all prerequisite units of study; or
- enrol in any unit with a co-requisite unit of study without having either previously passed the co-requisite unit of study or enrolling simultaneously in the co-requisite unit of study.

In reaching its decision about what action should be recommended with respect to unsatisfactory progress by a student, the faculty or school may establish one or more committees to consider the circumstances and hear any submission that a student wishes to make.

After receiving a recommendation from a faculty or school, the Academic Board or the Board of TAFE, as appropriate, may exclude or suspend the student from a course.

Alternatively, the relevant Board may specify the conditions under which the student may continue in a course.

Special arrangements will apply to doctoral students and students undertaking masters degrees by research who should seek advice on those arrangements from their supervisors.

Any student who is notified of unsatisfactory progress should seek assistance from Student Services staff or the Student Union at the earliest opportunity.

**DISCIPLINE**

The University will act to protect good order and the rights of individuals within its confines. To this end, a formal process will be followed to deal with any alleged breach of discipline or misconduct. The University operates within the provisions of a Statute dealing with discipline (Statute 4.1—Discipline). A copy can be obtained from the Governance and Policy Branch, telephone (03) 9919 4022.

**PLAGIARISM**

Paragraph 11(3)(d) of the Schedule to Statute 6.3.1—Assessment states that a student shall not, during or in connection with the performance of any component of assessment, submit or represent the whole or part of published or unpublished material, written or prepared by some person or persons other than that student, as being the work of that student.

Any student committing a breach of this rule shall be guilty of a disciplinary offence and all further proceedings will be conducted in accordance with Statute 4.1—Discipline, and Statute 2.7—The Discipline Committee.

**GRADUATION PROCEDURES**

This information relates to graduation from Certificate, Advanced Certificate, Associate Diploma, Diploma, Advanced Diploma, Bachelors, Graduate Certificate, Graduate Diploma, Masters and Doctoral awards of the University.

Upon satisfying all the requirements of an award course a student is regarded as a graduand and is eligible to become a graduate.

When you have completed or nearly completed a course you are required to submit an Application for an Award form. You can apply online through myVU at http://myvu.vu.edu.au. Alternatively, forms can be collected from and handed in at the Student Service Centre at any campus of Victoria University or downloaded from the University website and sent directly to:

Graduation and Offshore Student Administration
Telephone: 61 3 9919 2846
Fax: 61 3 9919 2853
Email: graduate@vu.edu.au
Website: www.vu.edu.au/graduation
Located: Room 4C, 141, St Albans Campus

Forms must be submitted before the set closing date.

Graduation ceremonies in 2006 are scheduled as follows:
- 16 February 2006: Malaysia
- 20 February 2006: Hong Kong
  Applications close 14 October 2005
  Attendance closes 11 January 2006
- 5 to 9 June 2006: Melbourne Convention Centre
  Applications close 27 January 2006
  Attendance closes 5 May 2006
- 1 to 3 November 2006: Melbourne Convention Centre
  Applications close 18 August 2006
  Attendance closes 29 September 2006

A graduation fee applies if you decide to attend a graduation ceremony.
VICTORIA UNIVERSITY 2006

ACADEMIC DRESS
The wearing of academic dress on ceremonial occasions is one of the traditions that is attached to universities. Victoria University has based its academic dress on the basic style of Oxford. It consists of a gown, a cap or bonnet, and a hood which represents the discipline of the degree.

CERTIFICANTS
A black gown and black cap together with a black stole faced in tangerine.

DIPLOMATES AND GRADUATE CERTIFICANTS
A black gown and black cap together with a black stole faced in the discipline colour.

BACHELORS
A black gown and black cap with a black hood half lined with the discipline colour. The hood for the honors degree also has a white band on the edge of the hood.

MASTERS
A black gown and black cap with a black hood fully lined with the discipline colour.

Discipline colours:
- Ruby: Arts
- Ultramarine: Business or Business Administration
- Cherry: Education
- Silver Grey: Engineering
- Old Rose: Health Science
- Parchment: Law
- Pansy: Music
- Buff: Psychology
- Spectrum Green: Science or Applied Science
- Gold: Social Work

DOCTORATES
A black bonnet with a gold cord and scarlet gown with a facing of the discipline colour and black hood fully lined in the discipline colour as follows:
- Adonis Blue: Doctor of Business
- Cherry: Doctor of Education
- Graphite: Doctor of Engineering
- Pearl White: Doctor of Laws
- Ruby: Doctor of Letters
- Sapphire: Doctor of Philosophy
- Old Gold: Doctor of Psychology
- Spectrum Green: Doctor of Science
- Sky Blue: Doctor of the University

The academic dress for indigenous Australians is the habit of their award together with a calf length black and red silk stole that has gold tassels, a map of Victoria in gold silk and ‘Victoria University’ embroidered in gold on the left end of the stole, and the sun in gold silk and ‘Ngaga Jindi Woraback’ embroidered in gold on the right end of the stole.

CREDIT POINTS
The credit point system provides a uniform basis for establishing unit of study relativities and values within a course. The objectives of the credit point system are to:
- simplify and standardise the relativities and values within a course in relation to EFTSL;
- provide a uniform measure of total student workload across all higher education programs; and
- allow students to make informed judgements on their likely workload in units of study across various disciplines.

WHAT IS A CREDIT POINT VALUE?
The value of a credit point is determined by the total student effort involved in the completion of a unit of study and includes private study hours, tutorial or laboratory work, library and research work together with formal class contact hours. The credit point value of a unit of study reflects its academic weight and the total amount of effort relative to other units of study within a course. There is no link between credit points and contact hours.

WHAT TYPE OF CREDIT POINT SYSTEM?
The University has introduced a standard course value system of credit points. This means that all courses within the higher education sector of the University will have the same number of credit points for each year of a course.

HOW MANY CREDIT POINTS?
The University has adopted from 2006 a system of 96 credit points for each year of a course. Thus a three-year degree program will equal 288 credit points, a four-year degree 384 credit points and so on.

HOW CAN I IDENTIFY MY ENROLMENT LOAD?
0–35 credit points per semester will equal a part-time load
36–48 credit points per semester will equal a full-time load
0–70 credit points per year will equal a part-time load
71–96 credit points per year will equal a full-time load.

EFTSL
All universities are required to calculate individual student enrolment load per year of a course. The Department of Education, Science and Training (DEST) expresses the value of an enrolment load as a percentage of 1, which is considered to be the total value of a standard, full-time course load. This unit of measurement is referred to as an Equivalent Full-Time Student Load or EFTSL.
SERVICES AVAILABLE TO STUDENTS

STUDENT CAREER DEVELOPMENT
Student Career Development provides an innovative range of services to Victoria University students. These services include:

- Online Career Services and Resources – website: www.vu.edu.au/careers
- Online job vacancy service – www.vu.edu.au/careers
- Career Development Programs
- Career Counselling
- Employment Services
- Career Resource Centres

Careers Counselling appointments are available for students at most campuses by phoning (03) 9919 4944.

ONLINE CAREER SERVICES AND RESOURCES
Visit our website, www.vu.edu.au/careers, to access career and employment information, workshops, employment opportunities and employer events. Put your career online by developing an Eportfolio at myeportfolio.vu.edu.au. Email your resume or career question to careers@vu.edu.au for feedback and answers from VU Careers Educators.

CAREER DEVELOPMENT PROGRAMS
These include Student Career Portfolio development, job search skills workshops, Employability Skills Development Programs, Young Achievement Australia, Industry Mentoring programs and in-class programs. Visit www.vu.edu.au/careers to see what’s on this month.

EMPLOYMENT SERVICES
Victoria University’s online jobs board can be accessed through www.vu.edu.au/careers Register on the site now for automatic notification of a wide variety of jobs and regular event updates via email.

Meet prospective employers at the the annual Careers Fair for students held on 30 March 2006. Its free, its easy and the employers come to you! Watch the website for details of other employer campus visits.

WHERE ARE WE?
Student Career Development, Footscray Park: Building M, level 4
On most other campuses, Student Career Development is co-located with Student Services.
Telephone: (03) 9919 4944
Website: www.vu.edu.au/careers
Email: careers@vu.edu.au

CHILDREN’S SERVICES
Victoria University has Children’s Centres located on five campuses – Footscray Nicholson, Footscray Park, Newport, St Albans (Jindi Woraback) and Werribee. In addition, there is a preschool located on the Melton Campus.

Each Centre provides educational programs which respond to the children’s social, emotional, physical, cognitive and creative needs. Nutritious meals and snacks are provided for the children throughout the day. All of the University Children’s Centres have been assessed as providing the highest level of care by the National Childcare Accreditation Council.

All Centres provide a funded and integrated preschool program with a qualified Early Childhood (Kindergarten) teacher.

Families using the University’s Children’s Centres are eligible to apply for Child Care Benefit (CCB) through the Family Assistance Office (FAO) – formerly Centrelink. The FAO is responsible for assessing family income and determining the percentage of Child Care Benefit families receive. For further information please contact your local Family Assistance Office.

CITY FLINDERS AND CITY KING CAMPUSES
Telephone: (03) 9919 4098
For further information on finding suitable childcare, telephone Children’s Services, on (03) 9284 8801.

FOOTSCRAY NICHOLSON CAMPUS
Telephone: (03) 9919 4098
The Footscray Nicholson Campus Children’s Centre is located on the Ground Floor, Hoadley Building, Albert Street, Footscray. The Centre caters for a maximum of 39 children aged six weeks to six years on a full-time (weekly), daily, sessional (half day) and occasional care basis. The Centre is open from 7.45am to 5.45pm, Monday to Friday and offers a funded preschool program incorporated within the educational program.

FOOTSCRAY PARK CAMPUS
Telephone: (03) 9919 4578
The Footscray Park Campus Children’s Centre is located at 8 Geelong Road, Footscray. The Centre caters for a maximum of 37 children aged six weeks to six years on a full-time (weekly), daily, sessional (half day) and occasional care basis. The Centre is open from 7.45am to 5.45pm, Monday to Friday and offers a funded preschool program incorporated within the educational program.

ST ALBANS CAMPUS (JINDI WORABACK CHILDREN’S CENTRE)
Telephone: (03) 9364 6855
The Jindi Woraback Children’s Centre is located at the Willis Street entrance of the St Albans Campus and is operated by a Management Committee consisting of representatives from the University and parents. The Centre caters for a maximum of 115 children aged from two weeks to six years on a full-time (weekly), daily, sessional (half day) basis. The Centre is open from 7.00am – 6.00pm, Monday to Friday and offers a funded preschool program.

MELTON CAMPUS
Telephone: (03) 9747 7500
The Brookfield Preschool operates from the Melton Campus Children’s Centre and is located at the Wilson Road entrance of the Campus. The Centre offers sessional kindergarten programs for three and four-year-old children.

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NEWPORT CAMPUS
Telephone: (03) 9919 8476
The Newport Campus Children’s Centre is located in Building K, Champion Road, Newport. The Centre caters for a maximum of 40 children aged six weeks to six years on a full-time (weekly), daily, sessional (half day) and occasional care basis. The Centre is open from 7.45am – 5.45pm, Monday to Friday. The Centre provides a funded preschool program incorporated within the educational program.

WERRIBEE CAMPUS
Telephone: (03) 9919 8098
The Werribee Campus Children’s Centre is located in Hoppers Lane, Entrance Gate 1, Building 9, Werribee. The Centre caters for a maximum of 45 children aged six weeks to six years on a full-time (weekly), daily, sessional (half day) and occasional care basis. The Centre is open from 7.15am – 6.15pm, Monday to Friday and offers a funded preschool program incorporated within the educational program.

GRADUATING STUDENTS
Graduation and Offshore Student Administration processes all sealed awards for the University. When you have completed or nearly completed a course, you are required to submit an Application for an Award form. You can apply online through myVU at: myvu.vu.edu.au. Alternatively, forms can be collected from and handed into the Student Service Centre at any campus of Victoria University or downloaded from the University website. The organisation of graduation ceremonies, both onshore and offshore, is also the responsibility of this section.

Graduation and Offshore Student Administration
Telephone:  61 3 9919 2846
Fax:  61 3 9919 2853
Email: graduate@vu.edu.au
Website:  www.vu.edu.au
Located: Room 4C, 141, St Albans Campus

INDEPENDENT ACCESS:
STUDENTS WITH A DISABILITY
Students with a disability have access to disabled parking, library resources and equipment, including support staff, faculty and department contact officers, and educational assistance through Student Learning Services. Students requiring in-class supports, teaching accommodations and/or applications for alternative assessment arrangements for examinations need to register with Disability Services (DS) in the Equity & Social Justice Branch. Students must register with DS each year, and as early as possible, to ensure adequate supports and up-to-date information and resources are available. A Disability Resource Room is located at St. Albans Campus providing access to adaptive technology as well as services such as the transcribing of text into electronic or Braille format.

Further information, registering and advice can be obtained by contacting Disability Services in the Equity and Social Justice Branch on (03) 9919 2193 or via email on disability@vu.edu.au.

Students with a disability seeking services such as personal and vocational counselling, careers advice, accommodation, chaplaincy, financial advice and scholarship information should contact Student Support (see section below).

ORIENTATION
Orientation is held for new students before the start of first semester each year. A wide range of events are organised to provide opportunities for students to meet each other and to gain an awareness of the activities and services provided by the University. An Orientation Information satchel is provided for new students including the The Survival Guide which includes information about the services available to students and a range of other extracurricular activities. Further information can be obtained at www.vu.edu.au or www.vustudents.org.au

MOONDANI BALLUK
(INDIGENOUS SERVICES)
Support for Aboriginal and Torres Strait Islander people is available through the Equity and Social Justice Branch. The two main aims of Indigenous Services Moondani Balluk is to fully support self determination and self management for Aboriginal and Torres Strait Islander people, families and community organisations; and to increase the access, participation, success and retention rates for Australian Indigenous people in the University’s programs. Moondani Balluk staff can assist students with course advice, Abstudy, academic support, employment and careers advice, social support, housing, counselling and discrimination advice.

For further information, contact Moondani Balluk on (03) 9919 2836 or email Moondani.Balluk@vu.edu.au.
STUDENT SUPPORT

Student Support provides services to students in a variety of ways. Staff provide educational support, personal and educational counselling, financial information and advice, money management, housing, health services, and Chaplaincy.

Student Support offices are located on most campuses and are open Monday to Friday during normal working hours, or after hours by appointment. For further information contact Footscray Park campus on (03) 9919 4418, St Albans campus on (03) 9919 2399, Footscray Nicholson campus on (03) 9919 8801 or visit our webpage: www.vu.edu.au/ss.

ACCOMMODATION

The University Student Housing Service is primarily a web based service which assists students with locating, securing and maintaining suitable accommodation by providing extensive information on the Student Housing Database and Housing web pages located on the University web site. The ‘Housing Web’ can be located at: www.vu.edu.au/ss/housing/ and holds a current listing of all accommodation offered to the University. The Housing Web also provides a wide range of tenancy rights information and other information such as Real Estate Agent lists and Student Village information. It provides links to a wide range of appropriate housing-related services including share accommodation, public transport and emergency housing services. Accommodation offers can be placed directly onto the Housing Web.

The Housing Officer and Student Assistance Officers can provide tenancy advice and referral as well as assistance with general housing information. Student Support staff can assist with accommodation inquiries. For further information, contact the Student Support offices telephone: (03) 9919 4418, (03) 9919 8801, (03) 9919 2399, (03) 9919 4420 or email housing@vu.edu.au.

CHAPLAINCY

Contact the ecumenical Chaplain for compassionate and spiritual support to your life issues, irrespective of religious affiliations.

Contact Student Support (03) 9919 2292, (03) 9919 2399 or visit www.vu.edu.au/Students/Student_Services/Chaplaincy/index.asp.

REFLECTION CENTRE

The Reflection Centre at St Albans provides a gathering area as well as a personal quiet space for everyone, irrespective of religious affiliation. Meditation, prayer and multi-faith services are conducted at the centre located at 11101.

COUNSELLING – PERSONAL

Counsellors can help students optimise their emotional, social and academic well being. Students are invited to discuss any personal, family or relationship matters with one of the counsellors. Some examples of issues that may be discussed include loneliness, difficulty adjusting to life at the University, relationships, sexuality, family difficulties, grief and loss, self confidence and anxiety.

Counselling can be contacted by telephoning (03) 9919 4418 or (03) 9919 2399 or (03) 9919 8801.

COUNSELLING – EDUCATIONAL

This can include helping students organise their study time and develop study plans, assistance with anxiety about exams and class presentation, applications for special consideration, and support for mature age students returning to study. Referrals can also be made for assistance with maths, essay writing and other study skills.

Counselling can be contacted by telephoning (03) 9919 4418 or (03) 9919 2399 or (03) 9919 8801.

FINANCIAL ADVICE

Financial advice is available to students experiencing financial difficulties. As well as helping students to work out ways of budgeting and planning, the financial advisor/counsellor can assist with claims for Centrelink payments and fee extensions.

Other assistance includes emergency relief, rent assistance and various forms of Centrelink benefits.

YOUTH ALLOWANCE/AUSTUDY/PES APPLICATIONS

The Youth Allowance/Austudy/Abstudy schemes provide assistance to Australian citizens and permanent residents who are enrolled in approved courses at universities, TAFE institutes and other approved institutions in Australia. (Generally, Youth Allowance is for persons up to age 25, Austudy for students over 25). Abstudy is a payment for Aboriginal and Torres Strait Islander students. The Pensioner Education Supplement (PES) is an additional payment available to students on certain Centrelink payments.

Assistance is subject to a means test and to certain conditions, including a minimum study load. Part time students under 21 years of age should note there is a provision for the payment of Youth Allowance for the sum of other approved activities such as job seeking, volunteer work, or training in addition to part time study. Ask the financial advisor/counsellor or seek a Centrelink interview.

A student who is eligible and qualifies for assistance may receive a living allowance and under special circumstances a fares allowance and rental assistance. Students may also apply for a Centrelink Advance Loan – an amount of up to $500.00 advance on future instalments, recovered over six months; this can only be done once in a calendar year.

Claim forms for Centrelink student payments are available on Campus, at secondary schools and Centrelink offices. Students are advised to lodge their initial claim with the nearest Centrelink office as soon as they enrol or re-enrol. Payees continuing in their current course will not have to submit another claim, but should return the Review Form sent to them within the stipulated time. Note that there is no provision for back pay if a student is not currently receiving benefits. It is important that an application for Austudy/Youth Allowance/Abstudy be lodged as soon as possible.

LOANS

Student Support administers a loan scheme for enrolled students of the University who can demonstrate a genuine need. Loans are available for the purchase of books, computers and other course related materials, medical expenses, housing expenses and other purposes in accordance with the Student Loan Fund Policy.

Application forms and information sheets are available on campus from Student Support on most campuses.
PRAYER ROOMS
There are dedicated prayer rooms available on most campuses – see campus location maps or www.vu.edu.au/ss website for their locations.

INTERNATIONAL STUDENT ADVISERS
Three International Student Advisers provide services and programs such as Orientation, Induction and Return Home for international students primarily in Higher Education. They are also available to provide individual assistance and support. TAFE international students may access Student Support services in the manner described for other services.

Further information is available at:
Footscray Park Campus: (03) 9919 4418
St Albans Campus: (03) 9919 2399
Footscray Nicholson Campus: (03) 9919 8801

VU INTERNATIONAL SERVICES
TAFE International Services are available at the Footscray Nicholson Street Campus, telephone: (03) 9919 8517. Services for AusAid sponsored students are available through Footscray Park Campus, telephone: (03) 9919 4780 or (03) 9919 4782.

Further information is available at:
Footscray Park Campus, telephone: (03) 9919 4777
St Albans Campus, telephone: (03) 9919 2399
City Flinders Campus, telephone: (03) 9919 1159

Further information relevant to international students is available from Victoria University International at the City Flinders Campus, telephone: (03) 9919 1164.

HEALTH ADVICE
There are two health advisers at the University, who are Division 1 Registered Nurses. Typical issues that people consult the health advisors about include:
• General health and wellbeing;
• Lifestyle issues;
• Women’s health;
• Drug use issues;
• Men’s health;
• Nutrition;
• Chronic illnesses;
• Family planning and sexual health;
• Pregnancy testing;
• Assistance with dressings;
• Vaccinations (at Footscray Park Campus).

The health advisors can also be contacted through Student Support on (03) 9919 4418 or (03) 9919 2399.

MEDICAL CENTRE
A Medical Centre is located at Student Support at the Footscray Park Campus in Building M, Level 2. Doctors consult on a sessional basis Monday to Thursday during Higher Education teaching time. All consultations are bulk billed on presentation of a Medicare card. For international students the Medical Centre bills Medibank Private direct. This means international students do not have to pay after their consultation provided they have their current Medibank Private card with them and they fill out a claim form at the Medical Centre. For appointments phone Student Support on (03) 9919 4418 or drop in to Student Support.

DRUG EDUCATION
Substance use and abuse is an issue of considerable concern in the general community. The University has a drug education officer who can provide information on drug related issues and provide advice on how to find treatment and counselling services in the community. Education sessions on these issues can be organised for groups of students by contacting the drug education officer on (03) 9919 8886.

FIRST AID
First aiders are located on all campuses of the University. Lists of first aiders can be located on the University intranet: http://intranet.vu.edu.au/hr/ohs/firstaid/htm

First aiders may provide assistance with:
• Anybody collapsing or becoming unconscious
• Difficulties with breathing or chest pain
• Any injury that is bleeding
• Suspected fractures
• Sudden illness, etc

If in doubt contact the Ambulance (0) 000
Don’t forget to advise your location and the nature of the emergency. If possible have someone meet the ambulance.

Health and emergency centres close to each campus are listed on the University intranet: http://intranet.vu.edu.au/hr/ohs/firstaid/htm

STUDENT LEARNING SERVICES [SLS]
Student Learning Services helps students adjust to the demands of TAFE and degree studies. Help is frequently provided for students in areas such as: English expression and grammar; planning and writing essays, case studies and reports; oral presentations; exam preparation and so on. In addition, support is available in basic maths, statistics and science. Workshops, drop-in sessions and online materials are provided for undergraduate students, and individual consultations and workshops are available for postgraduate students. The service aims to achieve two things: to help students with their immediate study needs and to give them the skills to successfully tackle similar tasks in future.

Program enquiries and bookings: telephone (03) 9919 4744.
For details of current programs and online materials for undergraduate students, visit our website at: http://tls.vu.edu.au/sls/intro.htm, or email: studentlearning@vu.edu.au or phillip.moore@vu.edu.au
TEACHING AND LEARNING SUPPORT

Teaching and Learning Support's purpose is to support the building and improving of learning, teaching, career development and work experiences for students, and professional and career development of staff of Victoria University, with particular emphasis on its diverse and cross sectoral nature, through:

- enhancing students’ learning capabilities and English language skills;
- supporting the staff of the University through professional development, and building VU’s educational processes;
- strengthening the interface between the University’s students, the world of work and building and supporting opportunities for the University’s graduates;
- using research to improve learning and teaching and providing support for practitioner led research into learning and teaching.

The Teaching and Learning Support Charter commits TLS to providing excellence in teaching and learning support services that add value to the University community.

We are committed to providing excellent support services for teaching and learning for the University community and its clients by:

- responsive innovative practice;
- continual evaluation and improvement of our services;
- acknowledgement of and respect for diversity;
- working together to achieve optimal outcomes.

The TLS comprises of the following four Centres:

- Postcompulsory Education Centre;
- Student Career Services;
- Staff Learning and Education Development;
- Student Learning Services.

The Teaching and Learning Support can be contacted by telephone: (03) 9919 5256 or email: tls@vu.edu.au or visit our website: http://tls.vu.edu.au

Belinda McLennan
Pro Vice-Chancellor (Teaching and Learning Support)

POSTCOMPULSORY EDUCATION CENTRE (PEC)

The Postcompulsory Education Centre (PEC) was established in January 2005 to provide a University-wide focus for postcompulsory education, particularly that related to the area of cross-sectoral and postcompulsory education.

The mission of PEC is to:

- conduct research into aspects of postcompulsory education, with an emphasis on cross-sectoral educational policy and practice;
- support practitioner-led research with the aim of developing the scholarship of learning and teaching across the University;
- co-ordinate research into postcompulsory education across the University; and
- contribute to the development of University educational policies that are informed by practice-based research.

PEC has an explicitly cross-sectoral focus, with a particular emphasis in the VET-higher education interface. Its research focus is substantially internal, although it will also seek external grants for more wide-ranging studies.

The Postcompulsory Education Centre can be contacted by telephone: (03) 9919 5455.

Professor Roger Gabb
Director, Postcompulsory Education Centre

STUDENT CAREER SERVICES

Student Career Services (SCS) provides services to the university and its community designed to maximise career outcomes for students.

These include:

- careers education and employment opportunities for VU students and graduates;
- work placement arrangements and exposure to VET programs for senior secondary students in the western suburbs of Melbourne;
- support for Learning in the Workplace activities;
- recruitment services on behalf of employers.

The Student Career Services can be contacted by telephone: (03) 9919 4052.

Joanne Tyler
Director, Student Career Services

STAFF LEARNING AND EDUCATIONAL DEVELOPMENT (SLED)

The Centre for Staff Learning and Education Development (SLED) comprises seven Units structure as three functional groupings. Each Functional grouping has a core focus being:

- the Staff College (comprising Quality Teaching and Innovation Unit; Educational Professional Development Unit; and Staff Career and Professional Development Unit);
- online technologies and flexible delivery (comprising Flexible Learning Unit and Educational Technology Support Unit); and
- educational products and curriculum services (comprising Courses and Pathways Unit).

The Staff Learning and Educational Development can be contacted by telephone: (03) 9919 8455.

Tess Demediuk
Director, Staff Learning and Educational Development

STUDENT LEARNING SERVICES (SLS)

The Centre for Student Learning Services (SLS) aims to enhance students’ learning capabilities and English language skills by providing:

- English language and academic skills support for students from Certificate 1 to postgraduate including classes, workshops, drop-in times, self-access & online materials, team teaching, guest lectures, tutorials and individual appointments;
- English language preparatory courses for international students on and off shore;
- English language testing for international students on and off shore;
- assistance and advice for VU staff in developing and implementing strategies for supporting students, including NESB and international students;
- advice on policy development in such areas as student learning support, English language and communication issues, academic transition and academic peer mentoring.

The Student Learning Support can be contacted by telephone: (03) 9919 4744.

Dr Amanda Pearce
Director, Student Learning Support

SERVICES AVAILABLE TO STUDENTS
SPORT AND RECREATION FACILITIES AND SERVICES

A range of sport, recreation and fitness facilities and services are provided by the University, including:

• sport and fitness centres at Footscray Park, St Albans, Sunbury and Werribee campuses;
• a 25-metre swimming pool at the Footscray Park;
• first-class athletics track and rugby field at the Werribee;
• multi-purpose sports halls at Melton, Footscray Park and Footscray Nicholson campuses;
• tennis courts at Werribee, Footscray Park and St Albans.

Sporting equipment is available from the sport and recreation facility on your campus. Programs and services include:

• Orientation Festival including Host Day, the ‘O Party’ and a range of campus events including free entertainment, food, stalls, club and sport information days;
• sporting opportunities including club sport, campus sport, cross campus and representative competitions;
• major events including parties, club nights and balls;
• trips and tours including learn to surf, skiing trips, Great Ocean Road tour, Phillip Island tour and the big ten-day trip to Central Australia;
• regular campus entertainment including performers, film screenings, club events, information days, free food and stalls;
• clubs and societies including social interest, cultural, faculty and course-based groups;
• student competitions such as the Diary Cover Competition and Art Prize.

For further information go to www.vu.edu.au/services or pick up a Sport and Recreation Handbook from your campus Student Service Centre.

STUDENT ORGANISATIONS

The peak student representative body at the University is the Victoria University Student Union Inc (VUSU Inc). The International Students Association and the Victoria University Postgraduate Association represent all international and postgraduate students respectively.

VUSU PRESIDENT OFFICE
(03) 9919 5053

VUSU EXECUTIVE OFFICE
(03) 9919 4811

INTERNATIONAL STUDENTS ASSOCIATION
(03) 9919 4730

STUDENT REPRESENTATION SECTION
General Enquiries (03) 9919 4360

CITY FLINDERS
Student Union Office (03) 9919 1204

FOOTSCRAY NICHOLSON
Student Union Office (03) 9919 8534

FOOTSCRAY PARK
Student Union Office (03) 9919 4056
Resource Centre (03) 9919 4302

ST ALBANS
Student Union Office (03) 9919 2809

WERRIBEE
Student Union Office (03) 9919 8238

TRAVEL CONCESSIONS

Rail and bus concession application forms are available at the start of each academic year from VU Student Union (Resource Centres).
COURSES AT VICTORIA UNIVERSITY IN 2006

This section lists all the courses offered by Victoria University in higher education and TAFE.

Note: All courses are offered subject to confirmation of funding and authority to conduct, and minimum enrolment levels. List correct as at October 2005.

UNDERGRADUATE COURSES AND PROGRAMS

CAMPUSS CODES

B=Sunbury
C=City Flinders
CG=Queen Street
D=China
E=Echuca
F=Footscray Park
G=Renin University of China
H=Hong Kong
H1=College of IT, Hong Kong
H3=Chinese University of Hong Kong, Hong Kong
H5=HKIT, Hong Kong
I=Internet
J=City King
K=Kuala Lumpur
K1=Sunway University, Malaysia
K2=Off campus
P=Singapore
P1=Sumbershire, Singapore
S=St Albans
S1=College of IT, Hong Kong
S2=Sunbury
S3=Queen Street
S4=Melton
S5=Shenyang, People’s Republic of China
S6=UIBE, China
S7=Renmin University, Beijing, China
S8=Shenyang, People’s Republic of China
S9=Jiaotong, The People’s Republic of China
S10=BJU Northern Jiaotong, China
S11=BEU, People’s Republic of China
S12=CUFE, China
S13=CUFE, China
S14=CUFE, China
S15=CUFE, China
S16=CUFE, China
S17=CUFE, China
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S64=CUFE, China
S65=CUFE, China
S66=CUFE, China
S67=CUFE, China
S68=CUFE, China
S69=CUFE, China
S70=CUFE, China

FACULTY OF HEALTH, ENGINEERING AND SCIENCE

FACULTY COURSES

Campus Fulltime Parttime

Bachelor
– Business/Science F/S/W Y Y
– Engineering/Science F/S/W Y Y
– Engineering/Laws F Y Y
– Engineering/Arts F/S Y Y
– Science/Laws F/S/W Y Y
– Science/Arts F/S Y Y
Certificate F/S Y Y

SCHOOL OF ARCHITECTURAL, CIVIL AND MECHANICAL ENGINEERING

Bachelor of Engineering
– Architectural Engineering F Y Y
– Building Engineering F Y Y
– Civil Engineering F Y Y
– Mechanical Engineering F Y Y
– Robotic Engineering F Y Y
Bachelor of Technology
– Building Surveying F/S Y Y

SCHOOL OF BIOMEDICAL SCIENCES

Bachelor of Science
– Biomedical Sciences S Y Y
– Occupational Health & Safety I Y Y
– Nutritional Therapy S Y Y
Bachelor of Science (Honours)
– Biomedical Sciences S Y Y
Double Degree
– Science/Psychology S Y Y
### SCHOOL OF COMPUTER SCIENCE AND MATHEMATICS

<table>
<thead>
<tr>
<th>Degree</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Science</td>
<td>F/H/D7</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Computer Science</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Computer &amp; Mathematical Sciences</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Computer Science &amp; Aviation</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Internet Technologies &amp; Applications</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Information Technology</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Computational Financial Mathematics</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Science (Honours)</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Computer Science</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Computer &amp; Mathematical Sciences</td>
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### INTERNATIONAL PROGRAM (OFFSHORE)

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<th>Year 1</th>
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<th>Year 3</th>
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<tbody>
<tr>
<td>Bachelor of Science in:</td>
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<tr>
<td>– Computer Science</td>
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<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Internet Technologies &amp; Applications</td>
<td>H/K</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>– Information Technology</td>
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### EXTERNAL PROGRAM

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<th>Year 3</th>
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<tbody>
<tr>
<td>Bachelor of Science in Computer Science</td>
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### SCHOOL OF ELECTRICAL ENGINEERING

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<th>Degree</th>
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<tbody>
<tr>
<td>Bachelor of Engineering</td>
<td>F</td>
<td>Y</td>
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<tr>
<td>– Electrical &amp; Electronic Engineering</td>
<td>F</td>
<td>Y</td>
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<tr>
<td>Bachelor of Engineering Science</td>
<td>F</td>
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<td>Y</td>
</tr>
<tr>
<td>– Electrical &amp; Electronic Engineering</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Bachelor of Science (Honours)</td>
<td>F</td>
<td>Y</td>
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<tr>
<td>– Computer Technology</td>
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<td>Y</td>
<td>Y</td>
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<tr>
<td>– Physics</td>
<td>F</td>
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### SCHOOL OF HEALTH SCIENCE

<table>
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<th>Degree</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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<tbody>
<tr>
<td>Bachelor of Chinese Medicine (Acupuncture &amp; Herbs)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Health Science</td>
<td>J</td>
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<td>Y</td>
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<tr>
<td>– Clinical Dermal Therapies</td>
<td>S, ZA</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>– Natural Medicine</td>
<td>S, I</td>
<td>Y</td>
<td>n/a</td>
</tr>
<tr>
<td>– Paramedic (3yr pre-service)</td>
<td>ZA, H</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Chinese Medicine</td>
<td>S</td>
<td>Y</td>
<td>n/a</td>
</tr>
<tr>
<td>– Naturopathy &amp; Homoeopathy</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Science</td>
<td>C</td>
<td>Y</td>
<td>n/a</td>
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<tr>
<td>– Clinical Sciences (Osteopathy)</td>
<td>C</td>
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### SCHOOL OF MOLECULAR SCIENCES

<table>
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<th>Year 3</th>
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</thead>
<tbody>
<tr>
<td>Bachelor of Applied Science</td>
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<td>N</td>
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<tr>
<td>Bachelor of Science</td>
<td>W</td>
<td>Y</td>
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<tr>
<td>– Chemistry</td>
<td>W</td>
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<tr>
<td>– Biotechnology</td>
<td>W</td>
<td>Y</td>
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<tr>
<td>– Medical, Forensic &amp; Analytical Chemistry</td>
<td>W</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>– Nutrition, Food &amp; Health Science</td>
<td>W</td>
<td>Y</td>
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<tr>
<td>Bachelor of Science (Honours)</td>
<td>W</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Biology (Biotechnology)</td>
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<td>Y</td>
<td>Y</td>
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<tr>
<td>– Nutrition &amp; Food Science</td>
<td>W</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>– Chemical &amp; Environmental Sciences</td>
<td>W</td>
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### SCHOOL OF NURSING AND MIDWIFERY

**NON AWARD SHORT COURSES**

<table>
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<tr>
<th>Course</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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<tbody>
<tr>
<td>Bridging Course (Division 2)</td>
<td>S</td>
<td>Y</td>
<td>n/a</td>
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<tr>
<td>Bridging Course (Graduate Entry)</td>
<td>S</td>
<td>Y</td>
<td>n/a</td>
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**AWARD COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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<tbody>
<tr>
<td>Bachelor of Nursing</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– (Pre-Registration)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– (Graduate Entry)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– (Division 2 Entry)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Health Science</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Nursing (Post-Registration)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>– Nursing (Honours)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Bachelor of Midwifery</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
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</tbody>
</table>
**SUSTAINABILITY GROUP**

Bachelor of Science  
– Ecology & Sustainability  
Bachelor of Science (Honours)  
– Ecology & Sustainability

**Note:** The details of the programs, courses and subjects set out in this Handbook might change after publication. To ensure that the information about Faculty of Health, Engineering and Science courses is still accurate, contact the Faculty of Health, Engineering and Science Student Centre: telephone (03) 9919 4516; facsimile: (03) 9919 4513; email: hes@vu.edu.au; website: www.vu.edu.au

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**FACULTY OF ARTS, EDUCATION AND HUMAN DEVELOPMENT**

<table>
<thead>
<tr>
<th>Program Description</th>
<th>Campus</th>
<th>Fulltime</th>
<th>Parttime</th>
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<tbody>
<tr>
<td><strong>GENERALIST DEGREE PROGRAMS</strong></td>
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<tr>
<td>Bachelor of Arts – Footscray</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Arts – St Albans</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td><strong>SPECIALIST DEGREE PROGRAMS</strong></td>
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<td></td>
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<tr>
<td>Bachelor of Arts (Advocacy &amp; Mediation)</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Arts (International Community Development)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Arts (Community Development) – Australian Stream (3rd year only)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Arts (Computer Mediated Art)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Bachelor of Arts (Criminal Justice Studies)</td>
<td>F</td>
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<tr>
<td>Bachelor of Arts (Human Services)</td>
<td>S</td>
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<tr>
<td>Bachelor of Arts (International Studies)</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Arts (Legal Studies)</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Arts (Multimedia)</td>
<td>S</td>
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<tr>
<td>Bachelor of Arts (Performance &amp; Multimedia)</td>
<td>F</td>
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<tr>
<td>Bachelor of Arts (Professional Writing)</td>
<td>S</td>
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<tr>
<td>Bachelor of Communication (Public Relations)</td>
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<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Multimedia Systems</td>
<td>K</td>
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<tr>
<td>Bachelor of Psychology (Arts stream)</td>
<td>F</td>
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<tr>
<td>Bachelor of Psychology (Interpersonal &amp; Organisational)</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Bachelor of Social Work (Preliminary Year)</td>
<td>S</td>
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<tr>
<td>Bachelor of Social Work</td>
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<tr>
<td>Bachelor of Science (Psychology)</td>
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<tr>
<td><strong>COMBINED DEGREE PROGRAMS</strong></td>
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<tr>
<td>Bachelor of Arts (International Studies)/Bachelor of Business (International Trade)</td>
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<tr>
<td>Bachelor of Arts/Psychology/Bachelor of Business (Human Resource Management)</td>
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<tr>
<td>Bachelor of Arts/Bachelor of Science</td>
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<tr>
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<tr>
<td>Bachelor of Exercise Science &amp; Human Movement/Bachelor of Psychology</td>
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<td>Bachelor of Business (Electronic Commerce)/Bachelor of Arts (Multimedia)</td>
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<td>Bachelor of Business (Tourism Management)/Bachelor of Arts (International Studies)</td>
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<td>Bachelor of Engineering/Bachelor of Arts</td>
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<td>Bachelor of Laws/Bachelor of Arts</td>
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<tr>
<td>Bachelor of Science/Bachelor of Psychology</td>
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<td>Bachelor of Arts (Honours)</td>
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<td>Bachelor of Arts (Honours) Computer Mediated Art &amp; Multimedia</td>
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<tr>
<td>Bachelor of Arts (Honours – Psychology)</td>
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<tr>
<td>Bachelor of Multimedia Systems (Honours)</td>
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<td>Y</td>
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<tr>
<td>Bachelor of Psychology (Honours)</td>
<td>F</td>
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<td>Y</td>
</tr>
<tr>
<td>Bachelor of Science (Honours – Psychology)</td>
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<tr>
<td>Bachelor of Applied Science (Honours) – Human Movement</td>
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<tr>
<td>Bachelor of Arts (Honours) – Performance Studies</td>
<td>B</td>
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<tr>
<td>– Sport Administration</td>
<td>B</td>
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<tr>
<td>– Recreation Management</td>
<td>F</td>
<td>Y</td>
<td>Y</td>
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</tbody>
</table>
SCHOOL OF EDUCATION

Bachelor of Arts
– Computer Mediated Art S Y Y
– Early Childhood Education M n/a Y
– Youth Studies F Y Y

Bachelor of Education (streams)
– Pre-Service Program P–12 F,M,B Y n/a
– Mathematics Teaching P–12 F Y N
– Science Teaching P–12 F Y N
– Contemporary Communication & Technology P–12 M Y N
– Outdoor Education P–12 M Y N
– Physical Education – Primary M Y N
– Creativity and the Arts P–12 S Y N
– Prep – 12 accelerated program S Y N
– Post-Registration (Year 4) B Y Y

Bachelor of Education (Nyerna Studies) Program E Y Y

Bachelor of Arts (Nyerna Studies) E Y Y

Diploma of Community Services – Youth Work E Y Y

Associate Diploma of Arts – Recreation/Fitness Leadership E Y Y

Bachelor of Arts
– Performance Studies F Y n/a
– Performance & Multimedia F Y n/a
– Recreation Management/Bachelor of Business – Sports Administration B Y Y
– Sports Administration/Bachelor of Business – Management B Y Y
– Sports Administration/Bachelor of Business-Marketing B Y Y

Bachelor of Recreation Management F,M Y Y

Bachelor of Applied Science (Honours) – Human Movement F Y n/a

Bachelor of Arts (Honours) F,S Y Y

– Performance Studies F Y Y
– Sport Administration B Y Y
– Recreation Management F Y Y
– Computer Mediated Art S Y Y
– Computer Mediated Art & Multimedia (Honours) S Y Y
– Early Childhood Education M n/a Y
– Youth Studies F Y Y

Bachelor of Arts (Nyerna Studies) continuing students only E Y Y

SCHOOL OF HUMAN MOVEMENT, RECREATION AND PERFORMANCE

Bachelor of Exercise Science
– Human Movement F Y Y
– Human Movement/Bachelor of Psychology F Y Y
– Human Movement/Bachelor of Arts Sport Administration F Y Y

Bachelor of Applied Science – Physical Education (Secondary) F Y Y

Bachelor of Applied Science - Sports Science (Golf) Full fee only F Y tba

Bachelor of Applied Science – Sports Science (Tennis) F,M Y tba

Bachelor of Arts
– Performance Studies F Y n/a
– Performance & Multimedia F Y n/a

Bachelor of Arts (Nyerna Studies) continuing students only B Y Y

Notes: The details of the programs, courses and subjects set out in this Handbook might change after publication. To ensure that the information about Faculty of Arts, Education and Human Development courses is still accurate, contact the Faculty Manager on (03) 9919 2369.
# FACULTY OF BUSINESS AND LAW

## SCHOOL OF ACCOUNTING AND FINANCE

<table>
<thead>
<tr>
<th>Bachelor of Business</th>
<th>Campus</th>
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<th>Parttime</th>
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<tbody>
<tr>
<td>Accounting</td>
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<td>N</td>
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<tr>
<td>Banking &amp; Finance</td>
<td>K,2</td>
<td>Y</td>
<td>N</td>
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<td>Accounting/Banking &amp; Finance</td>
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<td>Y</td>
<td>N</td>
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<td>Accounting/Hospitality Management</td>
<td>F</td>
<td>Y</td>
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<tr>
<td>Accounting/Information Systems</td>
<td>F</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Banking &amp; Finance/International Trade</td>
<td>F</td>
<td>Y</td>
<td>N</td>
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Bachelor of Business Combined Degrees
- Fasttrack BBus Accounting/ TAFE Accounting
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## SCHOOL OF APPLIED ECONOMICS

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Bachelor of Business Honours Degrees
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- Bachelor of Business (Honours) International Trade
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## SCHOOL OF HOSPITALITY, TOURISM AND MARKETING

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Bachelor of Business Combined Degrees
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- BBus Tourism Management/BA Recreation Management
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- BBus Marketing/BA Psychology
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</table>
- BA Sports Administration/BBus Event Management
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</table>
- BA Sports Administration/BBus Marketing
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UNDERGRADUATE COURSES AT VICTORIA UNIVERSITY IN 2006

SCHOOL OF INFORMATION SYSTEMS
Bachelor of Business
– Computer Systems Management W,H3,K1
– Electronic Commerce F,W,K1 Y Y
– Information Systems F,K1 Y Y
– Electronic Commerce/Music Industry F Y Y
– Electronic Commerce/International Trade F Y Y
Bachelor of Business Honours Degrees
– Bachelor of Business (Honours) Information Systems C Y Y
Bachelor of Business Combined Degrees
– B.Bus Electronic Commerce/Bachelor of Science W Y Y
– B.Bus Electronic Commerce/BA Multimedia F Y Y
– Bachelor of Engineering/BBus Electronic Commerce F Y Y

SCHOOL OF LAW
Bachelor of Laws
– Law CQ Y Y
– Graduate Entry CQ Y Y
– Legal Practice Management F Y Y
Bachelor of Laws/Bachelor of Business
– Bachelor of Laws/BBus Accounting F Y Y
– Bachelor of Laws/BBus Applied Economics F Y Y
– Bachelor of Laws/BBus Banking & Finance F Y Y
– Bachelor of Laws/BBus Electronic Commerce F Y Y
– Bachelor of Laws/BBus Event Management F Y Y
– Bachelor of Laws/BBus Human Resource Management F Y Y
– Bachelor of Laws/BBus International Trade F Y Y
– Bachelor of Law/B.BusManagement F Y Y
– Bachelor of Laws/BBus Marketing F Y Y
– Bachelor of Laws/BBus Music Industry F Y Y
– Bachelor of Laws/BBus Tourism Management F Y Y
Bachelor of Laws Combined Degrees
– Bachelor of Laws/Bachelor of Arts F Y Y
– Bachelor of Laws/Bachelor of Science F Y Y
– Bachelor of Engineering/Bachelor of Laws F Y Y

SCHOOL OF MANAGEMENT
Bachelor of Business
– Management F,B,DA,K1 Y Y
– Human Resource Management F,B,K1 Y Y
– Service & Human Resource Management B Y Y
– Strategic & Financial Management F Y Y
– Management/Marketing B Y Y
Bachelor of Business Honours Degrees
– Bachelor of Business (Honours) Management C Y Y
Bachelor of Business Combined Degrees
– BA Psychology/BBus Human Resource Management F,S Y Y
– BA Sports Administration/BBus Management B Y Y

Note: The details of the programs, courses and subjects set out in this Handbook might change after publication. To ensure that the information about Faculty of Business and Law courses is still accurate, contact the Faculty of Business and Law Executive Officer on (03) 9919 4471.
## POSTGRADUATE COURSES

### FACULTY OF HEALTH, ENGINEERING AND SCIENCE

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<tr>
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### CENTRE FOR ENVIRONMENTAL SAFETY AND RISK ENGINEERING

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<td>Master of Engineering (Research)</td>
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<td>Master of Engineering (Coursework)</td>
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<td>– Building Fire Safety &amp; Risk Engineering</td>
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<td>– Building Fire Safety &amp; Risk Engineering</td>
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<td>– Performance-based Building &amp; Fire Codes</td>
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### SCHOOL OF ARCHITECTURAL, CIVIL AND MECHANICAL ENGINEERING

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<td>– Mechanical Engineering</td>
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### SCHOOL OF BIOMEDICAL SCIENCES

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### SCHOOL OF COMPUTER SCIENCE AND MATHEMATICS

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<td>– Software Engineering</td>
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<td>– Computer &amp; Mathematical Sciences</td>
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POSTGRADUATE COURSES AT VICTORIA UNIVERSITY IN 2006

- System & Control Engineering  
- Telecommunication Engineering  
Double Degree [Coursework]  
Master of Engineering in Microelectronic Engineering /  
Master of Engineering Science in Computer & Microelectronic Engineering

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<td>- Emergency Nursing</td>
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<td>Master of Public Health Nursing</td>
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<td>Incorporating</td>
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**Note:** The details of the programs, courses and subjects set out in this Handbook might change after publication. To ensure that the information about Faculty of Health, Engineering and Science courses is still accurate, contact the Faculty of Health, Engineering and Science Student Centre: telephone (03) 9919 4516; facsimile; (03) 9919 4513; email: hes@vu.edu.au; website: www.vu.edu.au.
## FACULTY OF ARTS, EDUCATION AND HUMAN DEVELOPMENT

### HIGHER DEGREES BY RESEARCH

<table>
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<tr>
<th>Program</th>
<th>Campus</th>
<th>Full-time</th>
<th>Part-time</th>
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<tbody>
<tr>
<td>Master of Arts by Research</td>
<td>S, F</td>
<td>Y</td>
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<tr>
<td>Master of Education by Research</td>
<td>F, M, B</td>
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<tr>
<td>Master of Applied Science by Research</td>
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<tr>
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<tr>
<td>Doctor of Philosophy by Research</td>
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### POSTGRADUATE PROGRAMS BY COURSEWORK

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<td>Graduate Certificate in Asian &amp; Pacific Studies (General Stream)</td>
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<td>Y</td>
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<tr>
<td>Graduate Certificate in Asian &amp; Pacific Studies (Community Development Stream)</td>
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<tr>
<td>Graduate Certificate in Communication (Public Relations)</td>
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<td>Y</td>
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<tr>
<td>Graduate Certificate in Community Services</td>
<td>F</td>
<td>Y</td>
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<tr>
<td>Graduate Certificate in Arts (History)</td>
<td>F</td>
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<tr>
<td>Graduate Certificate in Arts (Politics &amp; International Studies)</td>
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<tr>
<td>Graduate Certificate of Public Advocacy &amp; Action</td>
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<tr>
<td>Graduate Diploma in Asian &amp; Pacific Studies (General Stream)</td>
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<td>Master of Arts in Asian &amp; Pacific Studies (Community Development Stream)</td>
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<tr>
<td>Master of Arts (Community Services)</td>
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<tr>
<td>Master of Arts in Communication</td>
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<tr>
<td>Master of Arts in Communication and Professional Writing</td>
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<tr>
<td>– Sport Psychology Stream</td>
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<td>Master of Psychoanalysis</td>
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<td>– Clinical Neuropsychology Stream</td>
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### FACULTY COURSES

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<tr>
<td>– Graduate Diploma in Dementia Care &amp; Service</td>
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<tr>
<td>– Master of Health Science – Aged Services</td>
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### SCHOOL OF EDUCATION

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<td>Graduate Programs in Aged Services incorporating</td>
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<tr>
<td>– Graduate Certificate in Aged Services</td>
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<td>– Graduate Diploma in Aged Services Management</td>
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<tr>
<td>– Graduate Diploma in Dementia Care &amp; Service</td>
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<tr>
<td>– Master of Health Science – Aged Services</td>
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</table>
Graduate Diploma in Secondary Education F-B Y N
Graduate Program in TESOL & Literacy incorporating
– Graduate Certificate in TESOL F N Y
– Graduate Certificate in Literacy F N Y
– Graduate Diploma in TESOL F,V Y Y
– Graduate Diploma in TESOL & Literacy F Y Y
– Master of TESOL F,V Y Y
– Master of TESOL & Literacy F Y Y
Master of Education (Specialisation)– Tertiary Education (available to VU teaching staff only) F Y Y
– Digital Technologies Education F Y Y
– Educational Leadership F Y Y
– Experiential Learning F Y Y
– Professional Development F Y Y
– Work Based Learning F F Y

SCHOOL OF HUMAN MOVEMENT, RECREATION AND PERFORMANCE
Graduate Diploma in Athlete Career Education (not offered 2006) ZA Y Y
Graduate Diploma in Exercise & Sport Sciences F Y Y
Graduate Program in Ageing, Disability & Recreation Management incorporating
– Graduate Certificate in Ageing, Disability & Leisure F Y Y
– Graduate Certificate in Ageing, Disability & Recreation Management F Y Y
– Graduate Diploma in Ageing, Disability & Recreation Management F Y Y
– Master of Arts – Ageing, Disability & Recreation Management F Y Y
Graduate Program in Exercise Rehabilitation incorporating
– Graduate Diploma in Exercise for Rehabilitation F Y Y
– Master of Applied Science – Exercise Rehabilitation F Y Y
Graduate Program in Loss & Grief incorporating:
– Graduate Certificate in Loss & Grief Education C Y Y
– Graduate Certificate in Loss & Grief Counselling C* Y Y
– Graduate Diploma in Loss & Grief Counselling C* Y Y
Graduate Program in Sport & Recreation Management incorporating
– Master of Arts – Sport & Recreation/Project Management F,H Y Y
– Master of Arts – Sport & Recreation Management F Y Y
– Master of Arts – Sport & Recreation Management (by coursework) F,H Y Y
– Graduate Program in Sport Business incorporating
– Graduate Diploma in Sport Business C Y Y
– Master of Sport Business C Y Y
Master of Applied Science
– Exercise Rehabilitation F Y Y
– Human Performance (by coursework) F Y Y
– Human Performance (by Research) C,F Y Y

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FACULTY OF BUSINESS AND LAW

VICTORIA GRADUATE SCHOOL OF BUSINESS

Campus Full-time Part-time
Master of Business Administration C,P1,K1,31,D1 Y Y
Doctor of Business Administration C,D1,K1,P1 Y Y
Master of Business by Research C Y Y
Doctor of Philosophy C Y Y

SCHOOL OF ACCOUNTING AND FINANCE

Graduate Certificate in Accounting C,P1,D2 Y Y
Master of Business in Accounting C Y Y
Master of Business in Finance C Y Y
Master of Business in Professional Accounting C,P1 Y Y
Master of Business by Research C Y Y
Doctor of Philosophy C Y Y

SCHOOL OF APPLIED ECONOMICS

Graduate Certificate in Statistics C Y Y
Graduate Certificate in Retail Management P1
Graduate Diploma in Retail Management P1
Master of Business in Business Economics C Y Y
Master of Business in Financial Risk Management C Y Y

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<tr>
<td>Master of Business in International Music &amp; Entertainment Business</td>
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<td>Y</td>
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<tr>
<td>Master of Business Global Logistics &amp; Transport</td>
<td>C,H1,23</td>
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<td>Master of Business in Retail Management</td>
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<tr>
<td>Master of Business by Research</td>
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<tr>
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**SCHOOL OF HOSPITALITY, TOURISM AND MARKETING**

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<tr>
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<td>Master of Business in Hospitality Management (Professional Practice)</td>
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<td>C</td>
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<td>Master of Business in Hospitality &amp; Tourism Management</td>
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<tr>
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<tr>
<td>Master of Business in Marketing</td>
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<td>Master of Business in Sports Tourism</td>
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**SCHOOL OF INFORMATION SYSTEMS**

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<tr>
<td>Graduate Certificate in Enterprise Resource Planning Systems</td>
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<tr>
<td>Graduate Diploma in Business Computing</td>
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<tr>
<td>Graduate Diploma in Enterprise Resource Planning Systems</td>
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<tr>
<td>Master of Business in Enterprise Resource Planning Systems</td>
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<td>Master of Business E-Commerce/Marketing</td>
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<tr>
<td>Master of Business in Information Systems</td>
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<tr>
<td>Master of Business in Electronic Commerce</td>
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<tr>
<td>Master of Business in Network Management</td>
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<td>Master of Business in Information Systems and ERP</td>
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<tr>
<td>Master of Business in Enterprise Application Integration</td>
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**SCHOOL OF LAW**

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<tr>
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<tr>
<td>Master of Comparative Commercial Law</td>
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<td>Y</td>
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<tr>
<td>Master of Regulatory &amp; Criminological Studies</td>
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<td>Y</td>
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<tr>
<td>Master of International Commercial Law</td>
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<tr>
<td>Master of Laws</td>
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<tr>
<td>Master of Taxation</td>
<td>CQ</td>
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<td>Master of Business by Research</td>
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<tr>
<td>Doctor of Juridical Science</td>
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<td>Doctor of Philosophy</td>
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**SCHOOL OF MANAGEMENT**

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<tr>
<td>Master of Business in Event Management</td>
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<td>Y</td>
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<tr>
<td>Master of Business in Industrial Relations/HRM</td>
<td>C</td>
<td>Y</td>
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<td>Master of Business in Management Practice</td>
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<td>Master of Contracting and Project Management</td>
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**SIR ZELMAN COWEN CENTRE**

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<tr>
<td>Graduate Diploma in Notarial Practice</td>
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<tr>
<td>Graduate Diploma in Superannuation Law &amp; Practice</td>
<td>C,Q</td>
<td>Y</td>
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</table>

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TAFE COURSES AT VICTORIA UNIVERSITY IN 2006

STAFF LEARNING AND EDUCATIONAL DEVELOPMENT
Course in ICT Skills for Teachers 21335VIC
Certificate IV in Training and Assessment TAA40104
Diploma of Training and Assessment TAA50104
Certificate IV in Vocational Education and Training 15559VIC
Diploma of Vocational Education and Training 15560VIC
Graduate Certificate in Vocational Education and Training 21205VIC

SCHOOL OF BUSINESS AND SERVICE INDUSTRIES
ADMINISTRATIVE AND LEGAL STUDIES DEPARTMENT
Certificate III in Business Administration BSB30201
Certificate IV in Business Administration BSB40201
Diploma of Business Administration BSB50201
Certificate III in Business BSB30101
Certificate IV in Business BSB40101
Advanced Diploma of Business [Legal Practice] 21618VIC
Certificate III in Business [Legal Administration] BSA30200
Certificate IV in Business [Legal Services] BSA40200
Diploma of Financial Services [Conveyancing] FNB50601
Advanced Diploma of Financial Services [Conveyancing] FNB60301
Certificate III in Local Government LGA30104
Certificate IV in Local Government LGA40104
Certificate IV in Local Government Administration LGA40204
Certificate IV in Government [Court Services] PSP40404
Diploma of E-Business BSB51101

FINANCIAL SERVICES DEPARTMENT
Diploma of Accounting FNB50202
Advanced Diploma of Accounting FNB60202
Certificate IV in Financial Services FNS40104
Diploma in Financial Services FNS50104
Advanced Diploma in Financial Services FNS60104
Course in Property [Agent's Representative] 21524VIC
Certificate IV in Property [Real Estate Agency Practice] 21525VIC
Certificate IV in Training and Assessment TAA40104
Diploma of Training & Assessment TAA50104

HOSPITALITY AND TOURISM DEPARTMENT
Certificate I in Hospitality [Operations] THH11002
Certificate I in Hospitality [Kitchen Operations] THH11102
Certificate II in Hospitality [Operations] THH21802
Certificate II in Hospitality [Kitchen Operations] THH22002
Certificate III in Hospitality [Commercial Cookery] THH31502
Certificate III in Hospitality [Catering Operations] THH32902
Certificate IV in Hospitality [Supervision] THH42602
Diploma of Hospitality Management THH51202
Advanced Diploma of Hospitality Management THH60202
Certificate II in Tourism [Operations] THT20502
Certificate III in Tourism [Retail Travel Sales] THT30202
Certificate III in Tourism [International Retail Travel Sales] THT30302
Certificate III in Tourism [Tour Wholesaling] THT30502
Certificate III in Tourism [Visitor Information Services] THT30602
Certificate III in Tourism [Guiding] THT30902
Certificate III in Tourism [Operations] THT31002
Certificate IV in Tourism [Sales & Marketing] THT40102
Certificate IV in Tourism [Operations] THT40202
Certificate IV in Tourism [Guiding] THT40302
Diploma of Tourism [Marketing and Product Development] THT50102
Diploma of Tourism [Operations Management] THT50302
Advanced Diploma of Tourism Management THT60102
LEADERSHIP AND SMALL BUSINESS
Certificate II in Security Operations PRS20103
Certificate III in Security Operations PRS30103
Certificate III in Investigative Services PRS30303
Diploma of Business Facilitation 21542VIC
Certificate III in Business [Frontline Management] BSB30504
Certificate IV in Business [Frontline Management] BSB41004
Diploma of Business [Frontline Management] BSB51004
Certificate I in Funeral Services WRS10202
Certificate III in Funeral Services [Funeral Operations] WFS30202
Certificate IV in Funeral Services WFS40102
Certificate II in Small Business (Operations/Innovation) 21530VIC
Certificate IV in Business [Small Business Management] BSB40401
Certificate II in Retail Cosmetic Sales WRB20304
Certificate II in Retail Operations WRR20102
Certificate III in Retail Supervision WRR30102
Certificate III in Retail Operations WRR30202
Certificate IV in Retail Management WRR40102
Diploma of Retail Management WRR50102
Certificate II in Wholesale Operation WRW20101
Certificate III in Wholesale Operations WRW30101
Certificate IV in Wholesale Management WRW40101
Diploma of Wholesale Management WRW50101
Graduate Certificate in Management 21365VIC
Graduate Certificate in Leadership in Education and Training 21554VIC

MANAGEMENT AND MARKETING DEPARTMENT
Certificate III in Business [Sales] BSB30301
Certificate III in Business BSB30101
Diploma of Business BSB50101
Certificate IV in Business [Advertising] BSB40601
Diploma of Business [Advertising] BSB50601
Advanced Diploma of Business [Advertising] BSB60501
Certificate IV in Business Development BSB40501
Diploma of Business Development BSB50501
Advanced Diploma of Business Development BSB60401
Certificate IV in E-Business BSB41201
Diploma of E-Business BSB51101
Advanced Diploma of E-Business BSB60701
Certificate IV in Business [Human Resources] BSB40801
Diploma of Business [Human Resources] BSB50801
Advanced Diploma of Business [Human Resources] BSB60301
Certificate III in Business [International Trade] BSB32004
Certificate IV in Business [International Trade] BSB42004
Diploma of Business [International Trade] BSB52004
Advanced Diploma of Business [International Business] 21613VIC
Certificate IV in Business Management BSB41101
Diploma of Business Management BSB50401
Advanced Diploma of Business Management BSB60201
Certificate IV in Business [Marketing] BSB40701
Diploma of Business [Marketing] BSB50701
Advanced Diploma of Business [Marketing] BSB60601
Certificate IV in Business [Public Relations] 21639VIC
Advanced Diploma of Business [Public Relations] 21640VIC
Certificate III in Customer Contact ICT30102
Certificate IV in Unionism BSB41804
Diploma of Unionism BSB51804

PERSONAL SERVICES DEPARTMENT
Certificate III in Beauty Services WRB30104
Certificate IV in Beauty Therapy WRB40104
Diploma of Beauty Therapy WRB50104
Certificate II in Hairdressing WRH20100 [Pre-Apprenticeship]
Certificate III in Hairdressing WRH30100
Certificate IV in Hairdressing WRH40100
Diploma of Hairdressing Salon Management WRH50100
Certificate II in Make-up Services WRB20204
Certificate IV in Make-up CUF40203
Diploma in Make-up CUF50203
Certificate IV in Massage HLT40302
Diploma of Remedial Massage HLT50302
Certificate II in Modelling 21456VIC
Certificate II in Nail Technology WRB20104
Certificate III in Nail Technology WRB30204
Advanced Diploma of Naturopathy HLT60502

SCHOOL OF ENGINEERING, CONSTRUCTION AND INDUSTRIAL SKILLS

AUTOMOTIVE TECHNOLOGY UNIT
Certificate II in Automotive Manufacturing [Various Streams] AUM20100
Certificate II in Automotive Technology Studies 21560VIC
Certificate I in Automotive AUR10105
Certificate II in Automotive Vehicle Servicing AUR20505
Certificate II in Automotive Vehicle Body AUR20905
Certificate III in Automotive Mechanical Technology AUR30405
Certificate III in Automotive Specialist AUR30605
Certificate III in Automotive Vehicle Body AUR30805
Certificate IV in Automotive Technology AUR40205

BUILDING AND CONSTRUCTION DEPARTMENT
Certificate II in Engineering – Production [Boatbuilding Pre-Apprenticeship] MEM20198
Certificate II in Engineering - Production Technology [Boatbuilding – Traineeship] MEM20298
Certificate III in Marine Craft Construction [Apprenticeship] MEM30603
Certificate II in Building and Construction (Bricklaying) [VCE/VCAL VET In Schools] 21393VIC
Certificate II in Building and Construction (Bricklaying – Pre-Apprenticeship) 21393VIC
Certificate III in General Construction [Bricklaying/Blocklaying] [Apprenticeship] BCG30698
Diploma of Building SA3475
Certificate IV in Building SA3477
Advanced Diploma of Building Design and Project Administration 40355SA
Diploma of Building Design and Technology 40356SA
Certificate IV in Residential Drafting 40357SA
Diploma of Building Surveying BCG50103
Advanced Diploma of Building Surveying BCG60103
Certificate II in Building and Construction (Bricklaying) 21393VIC
Certificate III in General Construction (Carpentry – Framework/Formwork/Finishing) [Apprenticeship] BCG30798
Certificate II in Furnishing (Pre-Apprenticeships in – Cabinet Making/Wood Machining/Furniture Polishing) 21278VIC
Certificate III in Furniture Making LMF30302
Certificate III in Furniture Making (Cabinet Making) LMF30402
Certificate III in Furniture Making [Wood Machining] LMF30502
Certificate IV in Applied Design [Furniture] 21528VIC
Certificate II in Joinery/Shopfitting/Stairbuilding [Pre-Apprenticeship] 21533VIC
Certificate III in Off-Site Construction [Joinery-Timber/Aluminium/Glass] BCF30200

BUILDING SERVICES AND SPECIAL TRADES DEPARTMENT
Certificate II in Building and Construction (Painting and Decorating – Pre-Apprenticeship) 21393VIC
Certificate III in General Construction (Painting & Decorating)[Apprenticeship] BCG30498
Certificate II in Drainage BCP20103
Certificate III in Plumbing BCP30103
Certificate II in Sign Writing 21398VIC
Certificate III in Off-Site Construction [Signwriting/Computer Operations] BCF30700
Certificate IV in Sign Technology 21399VIC

ELECTROTECHNOLOGY AND COMPUTER SYSTEMS DEPARTMENT
Certificate I in Electrotechnology [Engineering] UTE10102
Certificate II in Electrotechnology [Shared Technology] 21583VIC
Certificate II in Electrotechnology Servicing [Computer Assembly] UTE20504
Certificate II in Electrotechnology Servicing [Security Systems] UTE20504A
Certificate II in Electrotechnology Communications [Broadcast] UTE30402
Certificate III in Electrotechnology Computer Systems [Networks] UTE30599
Certificate III in Electrotechnology Entertainment and Servicing [Video] UTE30702
Certificate III in Electrotechnology Systems Electrician UTE31199
Certificate IV in Electrical Motor Control] 2406ANC
Certificate IV in Electrotechnology Computer Systems UTE40499
Advanced Diploma of Computer Systems Engineering UTE60199
Advanced Diploma of Electronic Engineering [Analogue and Digital] UTE60399
ENGINEERING TECHNOLOGY DEPARTMENT
Certificate II in Engineering Studies 21566VIC
Certificate III in Engineering Studies 21565VIC
Certificate I in Engineering MEM10198
Certificate II in Engineering – Production MEM20198
Certificate II in Engineering – Production Technology MEM20298
Certificate III in Engineering – Production Systems MEM30198
Certificate III in Engineering – Mechanical Trade MEM30298
Certificate III in Engineering – Fabrication Trade MEM30398
Certificate III in Engineering – Technician MEM30598
Certificate IV in Engineering MEM40103
Diploma of Engineering Technology 21621VIC
Advanced Diploma of Engineering Technology 21622VIC
Certificate III in Competitive Manufacturing MCM30104
Certificate IV in Competitive Manufacturing MCM40104
Diploma of Competitive Manufacturing MCM30104
Certificate IV in Logistics and Supply Chain Principles 21638VIC
Certificate III in Marine Craft Construction MEM30603
Certificate IV in Design Technology (Marine Vessels) 21467VIC
Diploma of Design Technology (Marine Vessels) 21465VIC
Advanced Diploma of Design Technology (Marine Vessels) 21463VIC
Certificate IV in Construction and Repair Technology (Marine Vessels) 21468VIC
Diploma of Construction and Repair Technology (Marine Vessels) 21466VIC
Advanced Diploma of Construction and Repair Technology (Marine Vessels) 21464VIC

INDUSTRIAL SKILLS TRAINING CENTRE
Certificate III in Motor Vehicle Driver Trainer [Car] 21370VIC
Certificate III in Motor Vehicle Driver Trainer [Heavy Vehicle] 21381VIC
Certificate III in Civil Construction (Plant) BCC30198
Certificate III in Civil Construction (Road Construction & Maintenance) BCC30298
Certificate III in General Construction BCG31398
Certificate I in Transport and Distribution [Administration] TDT11102
Certificate II in Transport and Distribution [Administration] TDT21102
Certificate III in Transport and Distribution [Administration] TDT31102
Certificate IV in Transport and Distribution [Administration] TDT41102
Certificate I in Transport and Distribution [Rail Operations] TDT10402
Certificate II in Transport and Distribution [Rail Operations] TDT20402
Certificate III in Transport and Distribution [Rail Operations] TDT30402
Certificate IV in Transport and Distribution [Rail Operations] TDT40402
Certificate I in Transport and Distribution [Road Transport] TDT10202
Certificate II in Transport and Distribution [Road Transport] TDT20202
Certificate III in Transport and Distribution [Road Transport] TDT30202
Certificate IV in Transport and Distribution [Road Transport] TDT40202
Certificate I in Transport and Distribution [Stevedoring] TDT10302
Certificate II in Transport and Distribution [Stevedoring] TDT20302
Certificate III in Transport and Distribution [Stevedoring] TDT30302
Certificate IV in Transport and Distribution [Stevedoring] TDT40302
Certificate I in Transport and Distribution [Warehousing and Storage] TDT10102
Certificate II in Transport and Distribution [Warehousing and Storage] TDT20102
Certificate III in Transport and Distribution [Warehousing and Storage] TDT30102
Certificate IV in Transport and Distribution [Warehousing and Storage] TDT40102
Certificate IV in Logistics and Supply Chain Principles 21638VIC
Diploma of Logistics Management TDT51002

SCHOOL OF FURTHER EDUCATION, ARTS AND EMPLOYMENT SERVICES
ACCESS PROGRAMS DEPARTMENT
Certificate I in ESL [Entry] 21496VIC
Certificate I in ESL [Access] 21497VIC
Certificate II in ESL [Access] 21498VIC
Certificate III in ESL [Access] 21499VIC
Certificate IV in ESL [Access] 21500VIC
Course in Preliminary Spoken and Written English 90989NSW
Certificate I in Spoken and Written English 90994NSW
Certificate II in Spoken and Written English 90993NSW
Certificate III in Spoken and Written English 90992NSW
Certificate I in General Education for Adults (Introductory) 21249VIC
Certificate I in General Education for Adults 21250VIC
Certificate II in General Education for Adults 21251VIC
Certificate III in General Education for Adults 21252VIC
Certificate I in Information Technology ICA10101
Certificate II in Information Technology ICA20199

EMPLOYMENT AND TRAINING SERVICES DEPARTMENT
Certificate I in ESL (Access) 21497VIC
Certificate II in ESL (Access) 21498VIC
Certificate III in ESL (Access) 21499VIC
Certificate I in Horticulture RFT20103
Certificate II in Horticulture RFT20103
Certificate I in Music Industry (Foundation) CUS10101
Certificate II in Music Industry (Foundation) CUS20101
Certificate II in Retail Operations WRR20102
Certificate I in Transition Education 15494VIC
Certificate I in Vocational Preparation 21625VIC
Certificate I in Vocational Studies (Media) 21263VIC
Certificate I in Work Education 21108VIC
Course in Workforce Re-entry Skills 21364VIC
Victorian Certificate of Applied Learning (Foundation) 21352VIC
Victorian Certificate of Applied Learning (Intermediate) 21353VIC
Victorian Certificate of Applied Learning (Themed) 21353VICA

FURTHER EDUCATION PROGRAMS DEPARTMENT
Diploma of Further Education 21015VIC
Certificate IV in Further Education 21014VIC
Diploma of Liberal Arts 21220VIC
Certificate IV in Liberal Arts 21219VIC
Victorian Certificate of Education 2200LZV
Certificate III in ESL (Further Study) 21501VIC
Certificate IV in ESL (Further Study) 21502VIC
Course in Preparation for Tertiary Studies (Arts) 21380VIC

MUSIC DEPARTMENT
Certificate IV in Music CUS40101
Certificate IV in Music Industry (Technical Production) CUS40201
Certificate IV in Music Industry (Business) CUS40301
Diploma of Music CUS50101
Diploma of Music Industry (Technical Production) CUS50201
Diploma of Music Industry (Business) CUS50301

VISUAL ART, DESIGN AND MULTIMEDIA DEPARTMENT
Advanced Diploma of Arts (Graphic Design) 12862VIC
Diploma of Arts (Graphic Arts) 12861VIC
Diploma of Arts (Visual Art) 12857VIC
Certificate IV in Design CUV40303
Advanced Diploma of Multimedia [Streams in Interactive Media and Games Development] CUF60501
Diploma of Multimedia CUF50701
Certificate IV in Multimedia CUF40801
Certificate III in Multimedia CUF30601
Certificate II in Multimedia CUF20601

VOCATIONAL EDUCATION PROGRAMS DEPARTMENT
Course in Gateway to Nursing and Health Sciences 21379VIC
Certificate III in ESL (Employment) 21503VIC
Certificate IV in ESL (Access) 21500VIC
Certificate IV in ESL (Further Study) 21502VIC
Certificate IV in ESL (Professional) 21505VIC
Certificate II in Library/Information Services CUL20104
Certificate III in Library/Information Services CUL30104
Certificate IV in Library/Information Services CUL40104
Diploma of Library/Information Services CUL50104
Advanced Diploma of Library/Information Services CUL60104
Certificate IV in Professional Writing and Editing 21123VIC
Diploma of Arts (Professional Writing and Editing) 21124VIC
SCHOOL OF HUMAN SERVICES, SCIENCE AND TECHNOLOGY

CHILD STUDIES DEPARTMENT
Certificate III in Children's Services CHC30402
Certificate IV in Out of School Hours Care CHC40402
Diploma of Out of School Hours Care CHC50202
Diploma of Children's Services CHC50302
Advanced Diploma of Children's Services CHC60202
Diploma of Community Services Management CHC51602
Advanced Diploma of Community Services Management CHC60402
Advanced Diploma of Community Services Work CHC60302

HEALTH SERVICES DEPARTMENT
Certificate IV in Health (Nursing) 21358VIC
Course in Medication Administration for Division 2 Registered Nurses in Victoria 21506VIC
Course in First Aid Level 1 - Emergency Life Support 21592VIC
Course in First Aid Level 2 - Provide First Aid 21593VIC
Certificate IV in Training and Assessment TAA40104

INFORMATION TECHNOLOGY DEPARTMENT
Certificate I in Information Technology ICA10101
Certificate II in Information Technology ICA20199
Certificate III in Information Technology [Software Applications] ICA30199 [Web pages]
Certificate III in Information Technology [General] ICA30299
Certificate III in Information Technology [Network Administration] ICA30399
Certificate IV in Information Technology 21488VIC
Certificate IV in Information Technology [Network Management] ICA40399
Certificate IV in Information Technology [Client Support] ICA40199
Certificate IV in Information Technology [Technical Support] ICA40599
Diploma of Information Technology [Computer Science] 21378VIC
Diploma of Information Technology [Software Development] ICA50299
Diploma of Information Technology 21489VIC
Dual Diploma of Information Technology [Website Development] ICA50601 and
Diploma of Information Technology [Networking] ICA50701

SCIENCE AND BIOTECHNOLOGY DEPARTMENT
Certificate IV in Science 21239VIC
Certificate II in Animal Studies RUV20104
Certificate III in Animal Technology RUV30104
Certificate III in Captive Animals RUV30204
Certificate III in Companion Animal Services RUV30304
Certificate IV in Veterinary Nursing RUV40404
Diploma of Animal Technology RUV50104
Certificate I in Conservation and Land Management RTD10102
Certificate II in Conservation and Land Management RTD20102
Certificate III in Conservation and Land Management RTD30102
Certificate IV in Conservation and Land Management RTD40102
Diploma of Conservation and Land Management RTD50102
Advanced Diploma of Conservation and Land Management RTD60102
Certificate III in Laboratory Skills PML30104
Diploma of Laboratory Technology PML50104
Certificate III in Local Government IGA30104
Certificate IV in Meat Processing [Leadership] MTM40100
Certificate IV in Meat Processing [Quality Assurance] MTM40300
Diploma of Meat Processing MTM50100
Advanced Diploma of Meat Processing MTM60100
Certificate I in Food Processing FDF10103
Certificate II in Food Processing FDF20103
Certificate III in Food Processing FDF30103
Certificate IV in Food Processing FDF40103
Diploma of Food Processing FDF50103
Certificate III in Health Service Assistance (Hospital/Community Health Pharmacy Assistance) HLT31402
Certificate IV in Occupational Health and Safety BSB41604
Diploma of Occupational Health and Safety BSB51604
Advanced Diploma of Occupational Health and Safety BSB61004
Certificate II in Racing [Stablehand] RGR20102
SOCIAL AND COMMUNITY STUDIES DEPARTMENT
Certificate III in Home and Community Care CHC30202
Certificate III in Aged Care Work CHC30102
Certificate IV in Aged Care Work CHC40102
Certificate IV in Service Co-ordination [Ageing and Disability] CHC40202
Certificate III in Disability Work CHC30302
Certificate IV in Disability Work CHC40302
Advanced Diploma of Disability Work CHC60102
Certificate IV in Alcohol and Other Drugs Work CHC41702
Diploma of Alcohol and Other Drugs Work CHC51102
Certificate IV in Justice 21212VIC
Diploma of Justice 21213VIC
Advanced Diploma of Justice 21214VIC
Certificate IV in Community Services [Lifestyle and Leisure] CHC41602
Diploma of Community Services [Lifestyle and Leisure] CHC50802
Certificate IV in Marriage Celebrancy CHC41502
Certificate III in Community Services Work CHC30802
Diploma of Community Development CHC51402
Diploma of Community Welfare Work CHC50702
Certificate III in Youth Work CHC30602
Certificate IV in Youth Work CHC40602
Diploma of Youth Work CHC50502
Foundations of Counselling 3113QB0104
Certificate III in Ambulance Communications [Call Taking] HLT31902
Certificate III in Non-emergency Patient Transport HLT30202
Certificate IV in Basic Emergency Care HLT41002
Certificate IV in Ambulance Communications [Despatch] HLT41102
Diploma of Paramedical Science [Ambulance] HLT50402

SPORT, RECREATION AND PERFORMANCE DEPARTMENT
Certificate III in Visual Arts & Contemporary Craft CUV30103
Diploma of Arts [Small Companies and Community Theatre] 21052VIC
Certificate III in Arts Administration CUV30403
Certificate IV in Arts Administration CUV40503
Certificate III in Fitness SRF30204
Certificate IV in Fitness SRF40204
Diploma of Fitness SRF50204
Certificate II in Sport [Career Orientated Participation] SRS20203
Certificate III in Sport [Career Orientated Participation] SRS30203
Certificate IV in Sport [Development] SRS40503
Diploma of Sport [Development] SRS50503
Certificate II in Sport and Recreation SRO20103
Certificate III in Sport and Recreation SRO30103
Certificate IV in Sport and Recreation SRO40103
Diploma of Sport and Recreation SRO50103
Diploma of Community Recreation SRC50201
Diploma of Event Management THT50202
Graduate Certificate in Career Counselling for Elite Performers (Dance, Music, Sport) 21237VIC